

Access DB# 3028474

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jerry Redman Examiner #: 68347 Date: 11/29/00  
Art Unit: 3634 Phone Number 302-2120 Serial Number: \_\_\_\_\_  
Mail Box and Bldg/Room Location: PK 5-603 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.  
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_  
Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

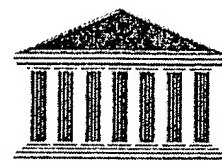
11/20/00 11/20/00 11/20/00

62

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Kathleen F. Miller</u>	NA Sequence (#) _____	STN <u>1</u>	
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____	
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____	
Date Searcher Picked Up: _____	Bibliographic <u>1</u>	Dr.Link _____	
Date Completed: <u>11/30/00</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____	
Online Time: <u>64</u>	Other _____	Other (specify) _____	



EIC 1700 / Lutrelle F. Parker Law Library



*Scientific and Technical Information Center*

## **Search Results Feedback Form**

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

Kathleen Fuller 308-4290

Eric Linnell 308-4143

Tim Saunders 308-4139

All the searchers are located in the library in CP3/4 3D62

---

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 10:49:38 ON 30 NOV 2000  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1967 - 30 Nov 2000 VOL 133 ISS 23  
FILE LAST UPDATED: 29 Nov 2000 (20001129/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

Now you can extend your author, patent assignee, patent information, and title searches back to 1907. The records from 1907-1966 now have this searchable data in CAOLD. You now have electronic access to all of CA: 1907 to 1966 in CAOLD and 1967 to the present in HCAPLUS on STN.

=> d que 128

L3 73918 SEA FILE=WPIDS ABB=ON ROOF?  
L4 140246 SEA FILE=WPIDS ABB=ON ?URETHAN? OR ?ISOCYANAT?  
L5 6939 SEA FILE=WPIDS ABB=ON L4(4A)ADHESIVE?  
L17 56 SEA FILE=HCAPLUS ABB=ON L3 AND L5  
L18 1 SEA FILE=REGISTRY ABB=ON "DIPHENYLMETHANE DIISOCYANATE"/CN  
L19 15328 SEA FILE=REGISTRY ABB=ON 101-68-8/CRN  
L20 11 SEA FILE=HCAPLUS ABB=ON (L18 OR L19) AND ROOF? AND ADHESIV?  
L21 3 SEA FILE=HCAPLUS ABB=ON L17 AND MOISTURE?(4A)CUR?  
L22 9 SEA FILE=HCAPLUS ABB=ON L17 AND PREPOLYMER?  
L24 19 SEA FILE=HCAPLUS ABB=ON L17 AND ?LAYER?  
L25 9 SEA FILE=HCAPLUS ABB=ON L24 AND COMPOSIT?  
L26 6 SEA FILE=HCAPLUS ABB=ON L17 AND (CAT/RL OR CATALY?)  
L27 2 SEA FILE=HCAPLUS ABB=ON L17 AND (TIN OR SN OR STANNIC OR STANNOUS)  
L28 28 SEA FILE=HCAPLUS ABB=ON (L20 OR L21 OR L22) OR (L25 OR L26 OR L27)

=> file wpids

FILE 'WPIDS' ENTERED AT 10:49:52 ON 30 NOV 2000  
COPYRIGHT (C) 2000 DERWENT INFORMATION LTD

FILE LAST UPDATED: 28 NOV 2000 <20001128/UP>  
>>>UPDATE WEEKS:  
MOST RECENT DERWENT WEEK 200061 <200061/DW>  
DERWENT WEEK FOR CHEMICAL CODING: 200061  
DERWENT WEEK FOR POLYMER INDEXING: 200061  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> D COST AND SET NOTICE DO NOT REFLECT SUBSCRIBER DISCOUNTS -  
SEE HELP COST <<<

>>> FOR UP-TO-DATE INFORMATION ABOUT THE DERWENT CHEMISTRY  
KATHLEEN FULLER EIC 1700 308-4290

RESOURCE, PLEASE VISIT

<http://www.derwent.com/chemistryresource/index.html> <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,  
SEE <http://www.derwent.com/covcodes.html> <<<

=> d que 116

L3 73918 SEA FILE=WPIDS ABB=ON ROOF?  
L4 140246 SEA FILE=WPIDS ABB=ON ?URETHAN? OR ?ISOCYANAT?  
L5 6939 SEA FILE=WPIDS ABB=ON L4 (4A) ADHESIVE?  
L6 116 SEA FILE=WPIDS ABB=ON L3 AND L5  
L7 54 SEA FILE=WPIDS ABB=ON L6 AND ?LAYER?  
L8 4 SEA FILE=WPIDS ABB=ON L6 AND MOISTURE? (3A) CUR?  
L9 6 SEA FILE=WPIDS ABB=ON L7 AND COMPOSITE?  
L10 38 SEA FILE=WPIDS ABB=ON L6 AND E04D?/IC  
L11 6 SEA FILE=WPIDS ABB=ON L10 AND PREPOLYMER?  
L12 5 SEA FILE=WPIDS ABB=ON L6 AND CATALY?  
L13 4 SEA FILE=WPIDS ABB=ON L6 AND (SN OR TIN OR STANNIC OR  
STANNOUS)  
L14 37 SEA FILE=WPIDS ABB=ON L7 AND (E04D?/IC OR B32B?/IC)  
L15 5 SEA FILE=WPIDS ABB=ON L14 AND PREPOLYMER?  
L16 25 SEA FILE=WPIDS ABB=ON L8 OR L9 OR (L11 OR L12 OR L13) OR L15

=> file compendex

FILE 'COMPENDEX' ENTERED AT 10:50:07 ON 30 NOV 2000  
COPYRIGHT (C) 2000 ENGINEERING INFORMATION, INC. (EI)

FILE LAST UPDATED: 15 NOV 2000 <20001115/UP>  
FILE COVERS 1970 TO DATE.

=> d que 140

L29 8 SEA FILE=COMPENDEX ABB=ON ROOF? AND ADHESIV? AND (URETHAN? OR  
POLYURETHAN? OR ISOCYANAT? OR POLYISOCYANAT?)  
L30 9074 SEA FILE=COMPENDEX ABB=ON ADHESIVES+NT/CT  
L31 3385 SEA FILE=COMPENDEX ABB=ON ROOFS+NT/CT  
L32 9524 SEA FILE=COMPENDEX ABB=ON POLYURETHANES+NT/CT  
L33 0 SEA FILE=COMPENDEX ABB=ON L30 AND L31 AND L32  
L34 15 SEA FILE=COMPENDEX ABB=ON L30 AND L31  
L35 0 SEA FILE=COMPENDEX ABB=ON L34 AND (URETHAN? OR POLYURETHAN?  
OR ISOCYANAT? OR POLYISOCYANAT?)  
L36 67 SEA FILE=COMPENDEX ABB=ON L31 AND (URETHAN? OR POLYURETHAN?  
OR ISOCYANAT? OR POLYISOCYANAT?)  
L37 1 SEA FILE=COMPENDEX ABB=ON L36 AND ADHESIV?  
L38 8 SEA FILE=COMPENDEX ABB=ON L36 AND COMPOSIT?  
L39 1 SEA FILE=COMPENDEX ABB=ON L36 AND MOISTUR? (3A) CUR?  
L40 16 SEA FILE=COMPENDEX ABB=ON L29 OR L33 OR L35 OR L37 OR L38 OR  
L39

=> file rapra

FILE 'RAPRA' ENTERED AT 10:50:26 ON 30 NOV 2000  
COPYRIGHT (C) 2000 RAPRA Technology Ltd.

FILE LAST UPDATED: 22 NOV 2000 <20001122/UP>  
FILE COVERS 1972 TO DATE

>>> THE THESAURI IN FIELD /CT AND /NPT HAVE BEEN RELOADED <<<

KATHLEEN FULLER EIC 1700 308-4290

=> d que 149

L41 109 SEA FILE=RAPRA ABB=ON ROOF? AND ADHESIV? AND (URETHAN? OR  
POLYURETHAN? OR ISOCYANAT? OR POLYISOCYANAT?)  
L42 4 SEA FILE=RAPRA ABB=ON L41 AND MOISTUR?(3A)CUR?  
L43 31 SEA FILE=RAPRA ABB=ON L41 AND COMPOSIT?  
L44 2 SEA FILE=RAPRA ABB=ON L43 AND (LAYER? OR MULTILAYER?)  
L45 29 SEA FILE=RAPRA ABB=ON L43 AND ADHESIVE+NT/CT  
L46 1 SEA FILE=RAPRA ABB=ON L45 AND PREPOLYMER?  
L47 0 SEA FILE=RAPRA ABB=ON L45 AND CATALY?  
L48 0 SEA FILE=RAPRA ABB=ON L45 AND (SN OR TIN OR STANNIC OR  
STANNOUS)  
L49 7 SEA FILE=RAPRA ABB=ON L42 OR L44 OR (L46 OR L47 OR L48)

=> dup rem 128 116 140 149

FILE 'HCAPLUS' ENTERED AT 10:50:45 ON 30 NOV 2000  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 10:50:45 ON 30 NOV 2000  
COPYRIGHT (C) 2000 DERWENT INFORMATION LTD

FILE 'COMPENDEX' ENTERED AT 10:50:45 ON 30 NOV 2000  
COPYRIGHT (C) 2000 ENGINEERING INFORMATION, INC. (EI)

FILE 'RAPRA' ENTERED AT 10:50:45 ON 30 NOV 2000  
COPYRIGHT (C) 2000 RAPRA Technology Ltd.

PROCESSING COMPLETED FOR L28

PROCESSING COMPLETED FOR L16

PROCESSING COMPLETED FOR L40

PROCESSING COMPLETED FOR L49

L50 71 DUP REM L28 L16 L40 L49 (5 DUPLICATES REMOVED)

=> d all 1-71



L50 ANSWER 1 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:441850 HCAPLUS

DN 133:74999

TI One-component, solvent-free, moisture-curable  
adhesive containing a silylated polymer for roofing  
insulation

IN Wood, James Fredrick; Wang, Xiaobin; Kubish, Scott

PA Adco Products, Inc., USA

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08G065-336

ICS C08G018-10; C08G018-08; C09J201-10

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000037534	A1	20000629	WO 1999-US30941	19991222

W: AU, CA

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE

PRAI US 1998-113301 19981222

AB A title **adhesive** comprises (a) a silylated polymer selected from  
silylated polyurethanes and silylated polyethers, and (b) an extender  
KATHLEEN FULLER EIC 1700 308-4290

selected from coal tar, arom. oils, and hydrocarbon resins. The **adhesive** compn. preferably includes a plasticizer such as diundecyl phthalate, a moisture scavenger, preferably 4,4-diphenylmethane diisocyanate, and a **catalyst** such as dibutyltin diacetate. A method of adhering **roofing** insulation to a **roof** deck comprises applying an **adhesive** to a **roof** deck, placing insulation in contact with the **adhesive** and curing the **adhesive** compn. Thus, 23.43 wt.% silylated polymer was added to the homogeneous mixt. of 54.66 wt.% RT 7 coal tar, 19.52 wt.% diundecyl phthalate, 2.15 wt.% Isonate 500P (MDI) and 0.007 wt.% Dabco BL 19 having moisture level .apprx.400 ppm, mixed until homogeneous, mixed with 0.12 wt.% of Metacure T 1 and 0.12 wt.% of Polycat DBU, and then continuously mixed under vacuum .gtoreq.20 in. for 30-60 min to obtain an **adhesive** compn. The **adhesive** applied to concrete and used to secure isocyanurate and wood fiberboard **roofing** insulation failed cohesively at 139 and 109 g/cm<sup>2</sup>, resp. Metal/plywood samples bonded with the above **adhesive** and aged at 22.degree. and 30% relative humidity had **adhesive** strength (Instron, 2 in/min) 162, 316, 605, 717 and 970 g/cm<sup>2</sup> in 15, 30, 60, 120 and 240 min resp.

- ST silylated polymer moisture curable insulation  
**adhesive**; coal tar extender silylated polymer **adhesive**;  
 diundecyl phthalate plasticizer one component **adhesive**;  
 diphenylmethane diisocyanate moisture scavenger **roofing**  
 insulation **adhesive**
- IT Coal tar  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (extender for **adhesive**, RT 7; moisture-  
 curable **adhesive** contg. a silylated polymer for  
 bonding **roofing** insulation)
- IT Aromatic oils (hydrocarbons)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (extender for **adhesive**; moisture-curable  
**adhesive** contg. a silylated polymer for bonding **roofing**  
 insulation)
- IT Crosslinking **catalysts**  
 Plasticizers  
**Roofing**  
 Thermal insulators  
 (moisture-curable **adhesive** contg. a  
 silylated polymer for bonding **roofing** insulation)
- IT **Adhesives**  
 (moisture-curable; moisture-  
 curable **adhesive** contg. a silylated polymer for  
 bonding **roofing** insulation)
- IT Solvents  
 (plasticizer; moisture-curable **adhesive**  
 contg. a silylated polymer for bonding **roofing** insulation)
- IT Phosphates, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (plasticizer; moisture-curable **adhesive**  
 contg. a silylated polymer for bonding **roofing** insulation)
- IT Esters, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polymers, plasticizer; moisture-curable  
**adhesive** contg. a silylated polymer for bonding **roofing**  
 insulation)
- IT Hydrocarbons, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (resins, extender for **adhesive**; moisture-  
 curable **adhesive** contg. a silylated polymer for  
 bonding **roofing** insulation)
- IT Polyethers, uses  
 Polyurethanes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(silylated; **moisture-curable adhesive**  
contg. a silylated polymer for bonding **roofing insulation**)

IT 1067-33-0, Metacure T 1 3033-62-3, Dabco BL 19 6674-22-2, Polycat DBU

RL: CAT (Catalyst use); USES (Uses)

(crosslinking **catalyst**; **moisture-curable adhesive** contg. a silylated polymer for bonding **roofing insulation**)

IT 101-68-8, MDI 204143-04-4, 500P

RL: MOA (Modifier or additive use); USES (Uses)

(**moisture scavenger**; **moisture-curable adhesive** contg. a silylated polymer for bonding **roofing insulation**)

IT 3648-20-2, Diundecyl phthalate

RL: MOA (Modifier or additive use); USES (Uses)

(**plasticizer**; **moisture-curable adhesive** contg. a silylated polymer for bonding **roofing insulation**)

RE.CNT 4

RE

(1) Kanegafuchi Chemical Industry; EP 0336431 A 1989

(2) Kanegafuchi Chemical Industry; EP 0844282 A 1998

(3) Konishi; JP 07188641 A 1995

(4) Simson; EP 0819749 A 1998

L50 ANSWER 2 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:718238 HCAPLUS

DN 133:297345

TI Two component **polyurethane** construction **adhesive**

IN Murray, Pat L.

PA Polyfoam Products, Inc., USA

SO U.S., 11 pp., Cont.-in-part of U.S. 5,951,796.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08G018-48

NCL 521131000

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6130268	A	20001010	US 1999-325980	19990604
	US 5951796	A	19990914	US 1997-880465	19970623
PRAI	US 1997-880465		19970623		

AB The adhesive is the reaction product of 2 sep. components that are mixed together immediately prior to application upon dispensing onto a substrate. The first part may be either an NCO-terminated **prepolymer** or a polymeric MDI (methylene di-Ph diisocyanate). The second part is a blend of rigid, elastomeric, and flexible polyols and extenders. The adhesive formed by mixing the A-side and B-side components, is a frothing foam that has a consistency such that it does not run or drip when applied to the substrate, that expands upon application to the substrate surface to fill voids or imperfections, that collapses when the material to be bonded is placed in contact with the adhesive, and has a rapid cure time. An adhesive was prepd. from Rubinate M, Poly G30-168, Poly G74-376, and diethylene glycol.

ST polyether **polyurethane** construction **adhesive**

IT Shingles (roofing)

(asphalt; two-component **polyurethane** construction **adhesive** for)

IT Cement (construction material)

(blocks; two-component **polyurethane** construction **adhesive** for)

IT Thermal insulators

KATHLEEN FULLER EIC 1700 308-4290

(boards; two-component **polyurethane** construction  
adhesive for)

IT Bricks  
(decorative; two-component **polyurethane** construction  
adhesive for)

IT Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-; two-component **polyurethane** construction  
adhesive)

IT Adhesives  
(**polyurethanes**; two-component **polyurethane**  
construction adhesive)

IT Adhesive bonding  
Tiles  
(two-component **polyurethane** construction adhesive)

IT 300714-54-9, Rubinate M-Poly G30-168-Poly G74-376-diethylene glycol  
copolymer 300835-03-4, Crude MDI-Poly G30-168-Poly G32-56-Poly  
G55-56-diethylene glycol copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(two-component **polyurethane** construction adhesive)

RE.CNT 15

RE

- (1) Anon; The Condensed Chemical Dictionary, Tenth Ed 1981, P20
- (2) Bartlett; US 5409962 1995 HCAPLUS
- (3) Dantinne; US 5294358 1994
- (4) Green; US 5455283 1995
- (5) Gusmer; US 4170440 1979
- (6) Gusmer; US 4199303 1980
- (7) Johnson; US 4636425 1987
- (8) Kluth; US 4489176 1984
- (9) Krueger; US 5296516 1994 HCAPLUS
- (10) Murray; US 5362342 1994
- (11) Rabito; US 4444976 1984 HCAPLUS
- (12) Ryoshi; US 5575871 1996
- (13) Venable; US 4996812 1991
- (14) Wencley; US 4244901 1981
- (15) Yu-Hallada; US 5318996 1994 HCAPLUS

L50 ANSWER 3 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:503415 HCAPLUS

DN 133:106046

TI Adhering process of molded ceilings to automobiles using  
**polyurethane adhesives** and their apparatus

IN Iida, Kazuyuki

PA Suzuki Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B62D065-00

ICS B05C005-00; B05C009-00; B05C011-00; B05D001-26; B05D007-24;  
B60R013-02

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000203473	A2	20000725	JP 1999-6479	19990113
AB	The process involves applying low-viscosity, moisture- <b>curable</b> , and 1 component-type <b>urethane adhesives</b> free from C on surfaces of molded ceilings and press-bonding the ceilings on back sides of <b>roofings</b> .				
ST	automobile molded ceiling adhering process; <b>polyurethane</b> <b>adhesive moisture curable</b> automobile ceiling; one component <b>polyurethane adhesive</b> automobile ceiling				

KATHLEEN FULLER EIC 1700 308-4290



IT Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (adhering process of molded ceilings to automobiles using  
**polyurethane adhesives** and their app.)

IT Automobiles  
 (headlinings; adhering process of molded ceilings to automobiles using  
**polyurethane adhesives** and their app.)

IT Adhesives  
 (moisture-curable; adhering process of molded  
 ceilings to automobiles using **polyurethane adhesives**  
 and their app.)

L50 ANSWER 4 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-207738 [19] WPIDS

DNC C2000-064287

TI **Polyurethane** based adhesive useful for bonding of  
**roofing** members comprises binder component and hardener component  
 containing thixotropic materials.

DC A25 A81 G03

PA (WEIS-N) WEISS CHEM & TECH GMBH & CO KG

CYC 1

PI DE 29920721 U1 20000309 (200019)\* 15p C09J175-04

ADT DE 29920721 U1 DE 1999-29920721 19991125

PRAI DE 1999-29920721 19991125

IC ICM C09J175-04

ICS C09J011-04; C09J011-06

AB DE 29920721 U UPAB: 20000419

NOVELTY - A **polyurethane** based adhesive comprises a  
 binder component and a hardener component containing thixotropic  
 materials.

DETAILED DESCRIPTION - A **polyurethane** based  
 adhesive (I) comprises (A) a binder consisting of (A1) 10-90 wt.%  
 polyol (A2) 0-50 wt.% pigment/filler (A3) 0-10 wt.% thixotrope (A4) 0-10  
 wt.% moisture binding agent (A5) 0-5 wt.% stabilizing agent (A6) 0-5 wt.%  
 PUR accelerator (A7) 0-5 wt.% additives to obtain a chemical thixotropy  
 (A8) 0-5 wt.% pigment/paste and (B) a hardener consisting of (B1) 0-90  
 wt.% of a prepolymer containing an excess of isocyanate (B2) 0-50 wt.%  
 pigment/filler (B3) 0-10 wt.% thixotrope (B4) 0-10 wt.% moisture binding  
 agent (B5) 0-5 wt.% stabilizing agent (B6) 0-5 wt.% PUR accelerator (B7)  
 0-5 wt.% additives to obtain a chemical thixotropy (B8) 0-5 wt.%  
 pigment/paste.

USE - The adhesive (I) is useful for the bonding of **roofing**  
 members having a felt or textile layer.

ADVANTAGE - The adhesive (I) penetrates the felt or textile layer to  
 form a moisture resistant barrier.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-section through  
 two **roofing** members in the region of overlap.

member 1

adhesive 2

felt layer 4,11

membrane 12,42

Dwg.1/2

FS CPI

FA AB; GI

MC CPI: A05-G01E1; A08-E01; A08-R01; A08-S08; A12-A05F; G03-B02E4

L50 ANSWER 5 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-319276 [28] WPIDS

DNN N2000-239543 DNC C2000-096966

TI Production of **roof**-reinforcing, internal cladding for vehicles,  
 passes soft foam through resin to adhere it to coverings and linings when  
 hot-pressed to form lighter, stronger rigid molding with high dimensional  
 stability.

DC A95 P73 Q17 Q22

IN BODWING, F; HAERTLING, P; KOENIGER, U; LOUIS, D

PA (JOHN-N) JOHNSON CONTROLS HEADLINER GMBH

CYC 25

PI DE 19847795 C1 20000504 (200028)\* 6p B62D025-06

EP 997265 A1 20000503 (200028) DE B32B005-18

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

ADT DE 19847795 C1 DE 1998-19847795 19981016; EP 997265 A1 EP 1999-120456  
19991014

PRAI DE 1998-19847795 19981016

IC ICM B32B005-18; B62D025-06

ICS B32B005-24; B32B027-12; B32B031-00; B60R013-02

AB DE 19847795 C UPAB: 20000613

NOVELTY - A foamed panel or band of material (14) is wetted or saturated with a resin material (28) adherent to two covering layers (16, 18), between which it is then sandwiched. Hot pressing in a mold (40), produces the required hardened roof contour.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the corresponding reinforced roof internal cladding.

Preferred features: The foam is passed through a bath of the resin, then through a calender with adjustable nip (30), pressing out surplus. Covering layers are added. The composite passes through a second calender (34), before reaching the hot pressing mold, where hardening and bonding are completed. Between first and second calenders, the foam is wetted with catalyst, which mixes with the resin in passing through the second nip, becoming distributed over the entire width. This accelerates hardening during hot pressing. The foam is 5-10 mm thick with a density of 15-25 kg/m<sup>3</sup>, preferably 21 kg/m<sup>3</sup>. Resin content following the first calender is 200-300 g/m<sup>2</sup>. Covering layer (16, 18) weights are 160-200, preferably 186 g/m<sup>2</sup>. Outer and inner coatings have weight 10-30 g/m<sup>2</sup> preferably 20 g/m<sup>2</sup>.

USE - To make a reinforcing internal lining for a vehicle roof.

ADVANTAGE - The new lining is even lighter in weight, and has high dimensional stability. The foam used is quite soft and is brought to shape with little resistance. Once set there is little or no tendency to spring back to original shape. Resin achieves both stiffening in the required shape, and adhesion to the coverings. Stiffness can be varied, and with it, acoustic damping properties, providing selectivity against specific frequencies. Use of soft foam reduces costs and weight. No additional waterproof coating is required, saving further cost, weight and materials, when lining with kraft paper. No blow holes are formed. This and further features are discussed in the text of the disclosure.

DESCRIPTION OF DRAWING(S) - A schematic side view, shows the production line.

foamed panel or band of material 14  
covering layers sandwiching foam 16, 18  
resin material adherent to covering layers 28  
calender with adjustable nip, pressing out surplus resin 30  
second calender 34  
hot pressing mold 40

Dwg.3/3

FS CPI GMPI

FA AB; GI

MC CPI: A11-B09A; A12-S02; A12-S04A3; A12-T04B

L50 ANSWER 6 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:582558 HCAPLUS

DN 131:201069

TI Two-component polyurethane construction adhesive and method of using same

IN Murray, Pat L.

PA Polyfoam Products, Inc., USA

SO U.S., 9 pp.

KATHLEEN FULLER EIC 1700 308-4290

CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C08G018-10  
 NCL 156078000  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5951796	A	19990914	US 1997-880465	19970623
	US 6130268	A	20001010	US 1999-325980	19990604
PRAI	US 1997-880465		19970623		

AB A method of bonding construction materials comprises: providing an isocyanate prepolymer, a polyether polyol blend, a soft hydrofluorocarbon blowing agent, and an app. for mixing and dispensing an adhesive reaction product of the prepolymer and the blend; mixing the prepolymer and the blend under low pressure using the app. and dispensing a frothing foam adhesive onto a surface of a substrate; allowing the foam adhesive to react and expand on the surface; placing a construction material in contact with the foam adhesive on the surface of the substrate; and allowing sufficient cell ruptures to cause the foam adhesive to collapse into a void-filling membrane which bonds the construction material to the substrate. The adhesive formed by mixing the components is a frothing foam that has a consistency such that it does not run or drip when applied to the substrate, that expands upon application to the substrate surface to fill voids or imperfections, that collapses when the material to be bonded is placed in contact with the adhesive, and that has a rapid cure time.

ST polyether polyurethane adhesive construction bonding  
 IT Shingles (roofing)

(asphalt; two-component polyurethane construction adhesive and method of using same)

IT Cement (construction material)  
 (blocks; two-component polyurethane construction adhesive and method of using same)

IT Thermal insulators  
 (boards; two-component polyurethane construction adhesive and method of using same)

IT Bricks  
 (decorative; two-component polyurethane construction adhesive and method of using same)

IT Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-; two-component polyurethane construction adhesive and method of using same)

IT Adhesives  
 (polyurethanes; two-component polyurethane construction adhesive and method of using same)

IT Adhesive bonding  
 Tiles  
 (two-component polyurethane construction adhesive and method of using same)

RE.CNT 12

RE

- (1) Bartlett; US 5409962 1995 HCAPLUS
- (2) Dantine; US 5294358 1994
- (3) Green; US 5455283 1995
- (4) Johnson; US 4636425 1987
- (5) Kluth; US 4489176 1984
- (6) Krueger; US 5296516 1994 HCAPLUS
- (7) Murray; US 5362342 1994
- (8) Rabito; US 4444976 1984 HCAPLUS
- (9) Ryoshi; US 5575871 1996
- (10) Venable; US 4996812 1991

KATHLEEN FULLER EIC 1700 308-4290

- (11) Wencley; US 4244901 1981  
 (12) Yu-Hallada; US 5318996 1994 HCAPLUS

L50 ANSWER 7 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:650526 HCAPLUS

DN 131:272954

TI Solvent-type two-liquid polyurethane **adhesive** and its application

IN Iijima, Hiroshi; Matsumoto, Sachio; Kamemura, Ichiro

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09J175-04

ICS E04D005-14; E04D011-02

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11279516	A2	19991012	JP 1998-77933	19980325
AB	The title <b>adhesive</b> , useful for fixing plastic sheets to form water-resistant rooftop, balcony, veranda, etc. (no data), is prepd. from polyols (e.g., adipic acid-1,4-butanediol-isophthalic acid copolymer), solvents (e.g., CH <sub>2</sub> Cl <sub>2</sub> ), and 5-40% plasticizers (e.g., DOP, dioctyl adipate) as the main liq. and polyisocyanates (e.g., MDI) as hardeners.				
ST	polyurethane two liq <b>adhesive</b> plastic bonding; polyesterpolyol polyisocyanate two liq <b>adhesive</b> ; DOP plasticizer polyurethane two liq <b>adhesive</b> ; dioctyl adipate plasticizer polyurethane two liq <b>adhesive</b>				
IT	Polyurethanes, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (2-liq. <b>adhesives</b> ; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	Resin acids RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (hydrogenated, esters with glycerol, Super Ester A-100, tackifiers; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	Polyurethanes, uses RL: TEM (Technical or engineered material use); USES (Uses) (polyester-, <b>adhesives</b> ; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	Plasticizers (solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	<b>Adhesives</b> (two-liq.; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	<b>Adhesives</b> (water-resistant; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	72276-01-8P, Adipic acid-1,4-butanediol-isophthalic acid-MDI copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (2-liq. <b>adhesives</b> ; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				
IT	117-81-7, DOP 123-79-5, Dioctyl adipate RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (plasticizers; solvent-type two-liq. polyurethane <b>adhesive</b> and application)				

KATHLEEN FULLER EIC 1700 308-4290

L50 ANSWER 8 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1999:206310 HCAPLUS  
 DN 130:283037  
 TI Water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using **polyurethane adhesives**  
 IN Kaneko, Shoichi; Takahashi, Susumu  
 PA Dainippon Ink and Chemicals, Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM E04D011-00  
 ICS B05D005-00; E04D007-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11081576	A2	19990326	JP 1997-240990	19970905
AB	The water-resistant laminates are prep'd. by coating water-resistant PVC sheets with soln.-type <b>polyurethane adhesives</b> , subsequently coating the sheets with <b>moisture-curable polyurethane adhesives</b> , finally coating the sheets with compns. contg. unsatd. monomers, and curing the coatings. The water-resistant laminates are useful for <b>roofings</b> . A PVC <b>roofing</b> sheet was coated with a soln. contg. 100 parts Pandex T-5260S35MT (polyether polyol-based polyurethane) and 10 parts Burnock D-750 (crosslinking agent) to coating wt. 150 g/m <sup>2</sup> , dried, coated with Plyadek T 120-35 ( <b>moisture-curable polyurethane</b> ) to coating wt. 100 g/m <sup>2</sup> , dried, coated with Polylyte FR-200 (unsatd. polyester), laminated with glass fiber mat, and cured 1 wk at room temp. to give a water-resistant laminate with layer bonding strength 17.6 kg/cm <sup>2</sup> .				
ST	PVC unsatd polyester laminate water resistant; <b>polyurethane adhesive</b> PVC unsatd polyester lamination; <b>roofing</b> PVC polyester laminate water resistant				
IT	<b>Polyurethanes</b> , uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (moisture-curable, adhesives; water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using <b>polyurethane adhesives</b> )				
IT	<b>Adhesives</b> (polyurethanes; water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using <b>polyurethane adhesives</b> )				
IT	<b>Construction materials</b> <b>Roofing</b> Water-resistant materials (water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using <b>polyurethane adhesives</b> )				
IT	<b>Laminated plastics</b> , uses <b>Polymers</b> , uses Unsaturated polyesters RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using <b>polyurethane adhesives</b> )				
IT	<b>Glass mats</b> RL: TEM (Technical or engineered material use); USES (Uses)				

KATHLEEN FULLER EIC 1700 308-4290

(water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using **polyurethane adhesives**)

IT 222416-37-7 222838-79-1, Plyadek T 120-35  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (adhesive; water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using **polyurethane adhesives**)

IT 80-62-6D, Methyl methacrylate, polymers 141255-99-4, Polylyte FR 200  
 172826-40-3, Diovar HTP 502  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (laminates with PVC; water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using **polyurethane adhesives**)

IT 9002-86-2, PVC  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (water-resistant laminates of PVC sheets with water-resistant polymers with high layer bonding strength and lamination thereof using **polyurethane adhesives**)

L50 ANSWER 9 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1999-518788 [43] WPIDS

DNN N1999-385806 DNC C1999-151592

TI Liners for vehicle roofs containing functional parts, e.g. lights, wires or loudspeakers.

DC A32 A95 Q17

IN CREMADES SCHULZ, A; DOMINGUEZ RUANO, J M; GONZALEZ GUEEMES, E; ORTEGA MARTINEZ, A

PA (IRAU-N) IRAUSA ING SA; (ANTO-N) GRUPO ANTOLIN-ING SA

CXC 26

PI WO 9943517 A1 19990902 (199943)\* ES 29p B60R013-02

RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: AU BR CA CN CZ JP MX TR US

AU 9862159 A 19990915 (200004) B60R013-02

EP 979760 A1 20000216 (200014) EN B60R013-02

R: DE ES FR, GB IT

ADT WO 9943517 A1 WO 1998-ES49 19980227; AU 9862159 A AU 1998-62159 19980227, WO 1998-ES49 19980227; EP 979760 A1 EP 1998-904184 19980227, WO 1998-ES49 19980227

FDT AU 9862159 A Based on WO 9943517; EP 979760 A1 Based on WO 9943517

PRAI WO 1998-ES49 19980227

IC ICM B60R013-02

ICS B29C033-12; B29C043-18; B29C067-18

AB WO 9943517 A UPAB: 19991020

NOVELTY - The liner support sheet is press-formed to create cavities for the functional parts and then these cavities are sealed by pressing the remaining liner layers against the sheet.

DETAILED DESCRIPTION - A method for making liners, especially vehicle roof liners with integral functional parts (5), comprises a press-forming process where the support sheet (4) is pressed inside a mold (1, 3) to create drawn forms (8) for the functional parts (5) of the liner. Immediately afterwards the form openings are closed by pressing the remaining liner layers (8) against them inside a mold, in order to form the finished support sheet with the remaining layers conforming to the shape of this sheet.

An INDEPENDENT CLAIM is also included for vehicle roof liners made by this method, comprising a sufficiently deformable support sheet made from thermoplastic, thermostable or composite material.

USE - As liners for vehicle roofs containing functional parts, e.g. lights, wires or loudspeakers.

KATHLEEN FULLER EIC 1700 308-4290

ADVANTAGE - Functional parts such as electrical conductors and connectors, ceiling lights, loudspeakers or airbags are integrated into the liner during the actual liner production process.

DESCRIPTION OF DRAWING(S) - Figure 7 shows the liner being formed in a two-part mold with fixed and moving sections, and figure 9 shows a cross-section through a formed liner for a vehicle roof.

Movable bottom mold section 1

Fixed top mold section 3

Support sheet 4

Functional parts of support sheet 5

Drawn forms 8

Liner layers 9

Dwg. 7, 9/34

FS CPI GMPI

FA AB; GI

MC CPI: A11-B08; A12-T04B

L50 ANSWER 10 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:115751 HCAPLUS

DN 128:218097

TI Bonding of parts to automobile trim parts

IN Usui, Nobuo

PA Kasai Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B05D007-24

ICS B60J005-00; B60R013-02; C09J005-00

CC 38-3 (Plastics Fabrication and Uses)

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10043680	A2	19980217	JP 1996-207312	19960806
AB	A method independent of the environmental humidity and having a short aging time includes spraying a reaction-type hot-melt adhesive and an aq. accelerator soln. through sep. spray guns, mixing them in the air, coating on a trim part, and bonding a part to the trim part. Thus, a decorative sheet was bonded to a door trim with a Hixon XU 057-1 urethane adhesive and an NC-IM catalyst.				
ST	urethane hot melt adhesive; automobile door trim				
IT	adhesive; decorative sheet automobile door trim				
IT	Automobile parts				
	Crosslinking catalysts				
	Hot melt adhesives				
	(bonding of parts to automobile trim parts with urethane adhesive contg. amine catalyst)				
IT	Polyurethanes, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(bonding of parts to automobile trim parts with urethane adhesive contg. amine catalyst)				
IT	Decoration				
	(decorative materials; bonding of parts to automobile trim parts with urethane adhesive contg. amine catalyst)				
IT	Doors				
	Roofs				
	(trims; bonding of parts to automobile trim parts with urethane adhesive contg. amine catalyst)				
IT	116680-33-2, NC-IM				
	RL: CAT (Catalyst use); USES (Uses)				
	(bonding of parts to automobile trim parts with urethane adhesive contg. amine catalyst)				
IT	204144-07-0, Hixon XU 057-1				
	RL: TEM (Technical or engineered material use); USES (Uses)				

KATHLEEN FULLER EIC 1700 308-4290

(bonding of parts to automobile trim parts with **urethane adhesive** contg. amine catalyst)

L50 ANSWER 11 OF 71 RAPRA COPYRIGHT 2000 RAPRA  
 AN R:678190 RAPRA FS Rapra Abstracts  
 TI FOCUS ON **POLYURETHANES**.  
 SO Plastics and Rubber Weekly No.1733, 24th April 1998, p.6  
 ISSN: 0032-1168  
 PY 1998  
 DT Journal  
 LA English  
 AB Baxenden Chemicals has patented a new enzymatic synthesis process for the production of polyester polyols for **urethane** resins. Avalon TPE from ICI **Polyurethanes** is being used for the soles of safety footwear. PU Components has installed new slitting equipment for the accurate cutting of heavy duty foam. An innovative PU **roof** coating manufactured by Liquid Plastics, Decothane HS, is one of 200 Millennium Products representing the best of British innovation.  
 CC 43C6; 33C6; 6C271; 6124; 28.11.12; 6A3  
 SC \*KT; IA; QD; OC; SL; QB  
 CT ABRASION RESISTANCE; ABRASION RESISTANT; **ADHESIVE**; BLEND; CELLULAR MATERIAL; COATING; COMPANIES; COMPANY; CRYSTALLINITY; CURING; CUT RESISTANCE; DATA; DEMAND; DENSITY; ECONOMIC INFORMATION; ELASTOMER; ENZYMATIC SYNTHESIS; FLEXIBILITY; FLEXIBLE; FOAM; FOOTWEAR; GROWTH RATE; HIGH-SOLIDS; HMW; **HOT MELT ADHESIVE**; HYDROLYSIS RESISTANCE; M.P.; MARKET SHARE; MECHANICAL PROPERTIES; MELTING POINT; **MOISTURE CURING**; MOLECULAR WEIGHT; MOLECULAR WEIGHT DISTRIBUTION; MWD; PATENT; PHYSICAL PROPERTIES; PLASTIC; POLYESTER POLYOL; **POLYURETHANE**; PU; RAW MATERIAL; RECYCLATE; RECYCLED; RECYCLING; **ROOF**; ROOM TEMPERATURE; RUBBER; SAFETY FOOTWEAR; SHORT ITEM; SLIP RESISTANCE; SLITTER; SOLE; SOLES; SOUND ABSORPTION; STATISTICS; THERMOPLASTIC; THERMOPLASTIC ELASTOMER; THERMOPLASTIC RUBBER; WEAR RESISTANCE; WEAR RESISTANT  
 SHR **URETHANE** POLYMERS, raw materials, footwear, foams, slitters, coatings  
 GT AUSTRIA; EUROPEAN COMMUNITY; EUROPEAN UNION; UK; WESTERN EUROPE  
 TN AVALON; DECOTHANE HS; XENOL

L50 ANSWER 12 OF 71 COMPENDEX COPYRIGHT 2000 EI  
 AN 1999(11):2055 COMPENDEX  
 TI Practical checks at ultimate and serviceability limit state of sandwich panels.  
 Praxisgerechte Nachweise zur Trag- und Gebrauchsfähigkeit von Sandwichbauteilen.  
 AU Berner, Klaus  
 SO Stahlbau v 67 n 12 Dec 1998.16p  
 CODEN: STAHAE ISSN: 0038-9145  
 PY 1998  
 DT Journal  
 TC General Review  
 LA German  
 AB Sandwich panels with thin metal sheets and a light, insulating core, e.g. of **polyurethane**-foam or mineral wool, are mainly used for roof or wall cladding panels. The components of the panels are bonded together to provide a **composite** load-bearing panel. In Germany, the practical use of these panels is regularized in the 'all-gemeine bauaufsichtliche Zulassung'. There are also recorded the essential design rules for the ultimate limit and the serviceability limit states. In the following the relevant details for the analysis on the base of the sandwich-theory are given in form of formulas and special diagrams, also including the additional actions due to the different temperature of the faces and the creeping effects of the core. Calculation procedures for a wall and a roof panel are given in an example. (Translated author abstract)  
 10 Refs.



CC 415 Metals, Plastics, Wood and Other Structural Materials; 408.2 Structural Members and Shapes; 408.1 Structural Design (General); 421 Strength of Building Materials. Mechanical Properties; 413 Insulating Materials; 819.2 Synthetic Fibers

CT \*Sandwich structures; Structural analysis; Foamed plastics; Creep; Walls (structural partitions); Roofs; Insulating materials; Mineral wool; Polyurethanes; Structural panels

ST Sandwich panels; Serviceability limit state; Composite load-bearing panels

L50 ANSWER 13 OF 71 RAPRA COPYRIGHT 2000 RAPRA

AN R:692156 RAPRA FS Rapra Abstracts; Adhesives Abstracts

TI FLAGON PVC SINGLE-PLY ROOF WATERPROOFING SYSTEMS.

CS British Board of Agreement; Flag SpA

SO Watford, 1997, pp.8. 30cms. 31/7/98

Agreement Board Certificate 97/3430/C

PY 1997

DT Company Publication

LA English

AB This certificate of confirmation relates to Flagon single-ply waterproofing membranes for use on limited access roofs. The membranes are formed from glass fibre-reinforced, non-woven polyester fleece-backed PVC for fully bonded systems, and from glass-fibre reinforced PVC for loose-laid and ballasted or fully bonded systems. Ancillary items include LDPE and PE vapour control layers, a PVC non-slip walkway membrane, and adhesives for use in bonding the membranes to substrate. Delivery, site handling, and installation guidelines are given, together with detailed design data covering weathertightness, wind resistance, fire properties, and resistance to foot traffic. Additionally, the results of technical investigations carried out on the system are tabulated.

CC 6R43; 42C382; 627

SC \*QP; KM; OK

\*ADALF; ADANJ

CT ADHESIVE; APPLICATION; BOND; BONDING; BUILDING APPLICATION; CALENDERED; CERTIFICATION; COMPANIES; COMPANY; COMPOSITE; DATA; DELIVERY SYSTEM; DESIGN; DIMENSION; DIMENSIONAL STABILITY; DURABILITY; ELONGATION; ETHYLENE POLYMER; FILTRATION; FLAME RESISTANCE; FLAME RESISTANT; FLAMMABILITY; FLAT ROOF; FLEECE; GEOGRID; GEOTEXTILE; GLASS FIBER-REINFORCED; GLASS FIBRE-REINFORCED; GRAPH; HANDLING; INSTALLATION; LDPE; LOW DENSITY POLYETHYLENE; MAINTENANCE; MECHANICAL PROPERTIES; MEMBRANE; NON-SLIP; NON-WOVEN; PE; PHYSICAL PROPERTIES; PLASTIC; POLYESTER FIBER; POLYESTER FIBRE; POLYETHYLENE; POLYURETHANE; POLYVINYL CHLORIDE; PROPERTIES; PU; PVC; QUALITY ASSURANCE; REGULATION; REINFORCED PLASTIC; REINFORCED PLASTICS; ROOF; ROOFING; SEPARATION; SPECIFICATION; STANDARD; STATIC LOAD; TABLES; TEAR RESISTANCE; TEAR STRENGTH; TECHNICAL; TENSILE PROPERTIES; TENSILE STRENGTH; TEST METHOD; TESTING; THERMOPLASTIC; THERMOSET; TWO-LAYER; VAPOR BARRIER; VAPOUR BARRIER; WALKWAY; WATERPROOFING; WEATHER RESISTANCE; WEATHER RESISTANT; WEATHERING; WEATHERING RESISTANCE

SHR COMPANY INFORMATION, Flag, roofing; ROOFING, company information, PVC, composites, reinforced plastics; BUILDING APPLICATIONS, roofing, composites, reinforced plastics; VINYL CHLORIDE POLYMERS, roofing, building applications; COMPOSITES, roofing, building applications; REINFORCED PLASTICS, roofing, building applications

SHA ROOFING, adhesives for; URETHANE POLYMERS, adhesives of

GT EUROPEAN COMMUNITY; EUROPEAN UNION; ITALY; UK; WESTERN EUROPE

TN FLAGON SFC; FLAGON SFB; FLAGON SV; FLAGON LDPE; VAPORFLAG; FLAG GEOTEXTILE; FLAGON WALKWAY; FLEXICOL C; FLEXICOL W

L50 ANSWER 14 OF 71 HCAPLUS COPYRIGHT 2000 ACS DUPLICATE 1  
 AN 1997:296910 HCAPLUS  
 DN 126:278634  
 TI Two-component solvent-free **polyurethane adhesive**  
 composition for bonding polymeric **roofing** materials to  
**roof-deck** substrates  
 IN Wen, Wei-Jian; Briddel, Brian Jonathan; Lamb, Kathleen Louise  
 PA Adco Products, Inc., USA  
 SO Eur. Pat. Appl., 7 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C09J175-04  
 ICS E04D005-14  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 764707	A2	19970326	EP 1996-306326	19960830
	EP 764707	A3	19970827		
	R: DE, FR, GB				
	US 5872203	A	19990216	US 1995-533640	19950925
PRAI	US 1995-533640		19950925		

AB **Polyurethane adhesive** compn. with 100% solids, good bond strength and aging resistance, useful for bonding polymeric **roofing** materials to **roof-deck** substrates, comprises a first component contg. a monomeric or polymeric diisocyanate, or a polyurethane **prepolymer** and a second component comprising a polyether or polyester polyol, an amine-modified polyether polyol, a hydroxyl-terminated polybutadiene or their mixts. Thus, 100 g polyurethane **prepolymer** prepd. from Pluracol 2010 (polyether polyol) and Papi 2901 (methylene dibenzene diisocyanate), and 147.8 g polyol mixt. of Pluracol 2010 (polyether polyol), Voranol 220-530 (amine-modified polyol), Poly bd-R 45HT (hydroxy-terminated butadiene rubber) and other additives (CNO:OH = 1.05:1) were mixed and applied on an EPDM sample which was adhered to plywood substrate showing peel strength (ASTM D 1876) 0.36 (after 7 days at room temp.) and 0.25 kg/cm (7 days in water at 158.degree.F and 24 h at -40.degree.F).

ST solvent free bicomponent **polyurethane adhesive**;  
**polyurethane adhesive** bonding polymer roof  
 deck; diisocyanate **prepolymer** polyol  
**polyurethane adhesive** prepn; MDI polyol polybutadiene  
 adhesive compn; EPDM bonding plywood substrate  
**polyurethane adhesive**

IT Polyester-**polyurethanes**  
 Polyether-**polyurethanes**  
 Polyoxyalkylene-**polyurethanes**  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(adhesive; two-component solvent-free **polyurethane**  
**adhesive** compn. for bonding polymeric **roofing**  
 materials to **roof-deck** substrates)

IT Cinders  
 (block substrate; two-component solvent-free **polyurethane**  
**adhesive** compn. for bonding polymeric **roofing**  
 materials to **roof-deck** substrates)

IT Butadiene rubber, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(hydroxy-terminated, poly bd-R 45HT, block polymer with polyols and  
 MDI; two-component solvent-free **polyurethane adhesive**  
 compn. for bonding polymeric **roofing** materials to  
**roof-deck** substrates)

IT **Polyurethanes**, uses

KATHLEEN FULLER EIC 1700 308-4290

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polybutadiene-, adhesive; two-component solvent-free  
**polyurethane adhesive** compn. for bonding polymeric  
roofing materials to roof-deck substrates)

IT EPDM rubber  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(polymeric roofing materials; two-component solvent-free  
**polyurethane adhesive** compn. for bonding polymeric  
roofing materials to roof-deck substrates)

IT Two-component adhesives  
(**polyurethane**; two-component solvent-free  
**polyurethane adhesive** compn. for bonding polymeric  
roofing materials to roof-deck substrates)

IT Adhesives  
(solventless, **polyurethane**; two-component solvent-free  
**polyurethane adhesive** compn. for bonding polymeric  
roofing materials to roof-deck substrates)

IT Fiberboards  
Plywood  
(substrate; two-component solvent-free **polyurethane**  
**adhesive** compn. for bonding polymeric roofing  
materials to roof-deck substrates)

IT Roofing  
(two-component solvent-free **polyurethane adhesive**  
compn. for bonding polymeric roofing materials to  
roof-deck substrates)

IT 9003-17-2  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(butadiene rubber, hydroxy-terminated, poly bd-R 45HT, block polymer with polyols and MDI; two-component solvent-free **polyurethane adhesive** compn. for bonding polymeric roofing materials to roof-deck substrates)

IT 7429-90-5, Aluminum, uses  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(substrate; two-component solvent-free **polyurethane adhesive** compn. for bonding polymeric roofing materials to roof-deck substrates)

IT 101-68-8D, MDI, block polymer with OH-terminated butadiene rubber and polyether polyol 25322-69-4D, Pluracol 2010, block polymer with OH-terminated butadiene rubber, polyol and MDI 163151-09-5D, Voranol 220-530, block polymer with OH-terminated butadiene rubber, polyether polyol and MDI  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(two-component solvent-free **polyurethane adhesive** compn. for bonding polymeric roofing materials to roof-deck substrates)

L50 ANSWER 15 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:151395 HCAPLUS  
DN 126:158864  
TI Adhesive-coated layable sheets and their manufacture  
IN Weller, Horst  
PA Berleburger Schaumstoffwerk GmbH, Germany  
SO Ger. Offen., 5 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM B29C065-48  
ICS B29C065-40; B32B007-12; B32B031-08; B32B025-08; B32B027-40  
ICI B29L009-00  
CC 42-11 (Coatings, Inks, and Related Products)

KATHLEEN FULLER EIC 1700 308-4290

Section cross-reference(s): 38, 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19522484	A1	19970102	DE 1995-19522484	19950621
	CH 689732	A	19990930	CH 1996-1396	19960603
PRAI	DE 1995-19522484		19950621		

AB Rubber-polyurethane **composite** title sheets, useful for covering **roofs**, are manufd. by coating the base sheet with hot-melt adhesive powder and heating the powder so as to harden the surface of the adhesive **layer** in a continuous process. The adhesive-coated sheets are laid onto a surface by unrolling rolls of the sheets while a hot-air knife is positioned at the point at which the roll contacts the surface.

ST adhesive coated rubber polyurethane composite roofing

IT Hot-melt adhesives

Roofing

(manuf. of adhesive-coated layable rubber-polyurethane **composite** sheets and their application to roof surfaces)

IT Polyurethanes, uses

Rubber

RL: TEM (Technical or engineered material use); USES (Uses)

(manuf. of adhesive-coated layable rubber-polyurethane **composite** sheets and their application to roof surfaces)

L50 ANSWER 16 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1998-059382 [06] WPIDS

DNC C1998-020666

TI Water proof polyurethane foam - made by shaping crashed chips including polyurethane foam by using a water proof **polyurethane adhesive**.

DC A25 A81 A93 G04

PA (KURB) KURABO IND LTD

CYC 1

PI JP 09302219 A 19971125 (199806)\* 7p C08L075-04

ADT JP 09302219 A JP 1996-120122 19960515

PRAI JP 1996-120122 19960515

IC ICM C08L075-04

ICS C08J009-236; C08L021-00; C08L023-00; C08L025-04; C09J175-04; C09K003-10

AB JP 09302219 A UPAB: 19980209

A water proof polyurethane foam made by shaping crashed chips including polyurethane foam by using a water proof **polyurethane adhesive**.

Also claimed are: (a) the crashed chips including polyurethane foam contain up to 30 vol% of a mixture of at least one of crashed chips of rubber, polyolefine, polystyrene and wood; (b) the water proof **polyurethane adhesive** comprises a one liquid type **moisture curable polyurethane adhesive**, a two liquid type reactive **polyurethane adhesive** or one liquid type **polyurethane** emulsion and at least one of an organosilicone water proofing agent, a perfluoroalkylethylene acrylate water proofing agent, 12 or more C linear alkyl ethylene urea, wax and a fatty acid ester in an amount of 0.5-200 pts.wt. based on 100 pts.wt. of the solid in the **adhesive**; (c) the water proof **polyurethane adhesive** is a two liquid reaction type **adhesive** comprising a mixture of 100 pts.wt a hydrophobic cpd. having active hydrogen and 50-200 pts.wt. an aliphatic and/or aromatic ester essentially not contg. active hydrogen and having a melt temp. or softening temp. of up to 150 deg. C and a boiling temp. of at least 200 deg. C, and a polyisocyanate cpd. and used at a condition of NCO index of

KATHLEEN FULLER EIC 1700 308-4290

0.8-8.0; (d) the water proof urethan foam wherein the water proof **polyurethane adhesive** has a solid content of 2-90 wt.% and is diluted by a solvent for polyurethane

USE - The water proof polyurethane foam is used as architectural material including water proof sealing material, caulking compound, packing material, **roof** heat insulating material, heat insulating material and water proof roll, etc..

ADVANTAGE - The urethane foam is made of wasted and recycled urethan foam as a raw material.

Dwg.0/1

FS CPI

FA AB

MC CPI: A05-G01E; A12-A05F; A12-R01; A12-S02; G04-B02

L50 ANSWER 17 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:154813 HCAPLUS

DN 126:158483

TI Foamable adhesives for waterproofing bonding of **roofing**

IN Iwata, Fujio; Yamaguchi, Takeshi

PA J C Composit Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM E04D001-36

ICS C09J175-04; E04D003-38; C08G018-10

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08333846	A2	19961217	JP 1995-140469	19950607
AB	The title adhesives, useful for bonding <b>roofing</b> tiles, slates, etc., comprise polyurethanes (e.g., Meiwasol CX-BH 5 Conc, Sanprene NCG 1000), blowing agents, and optionally, surfactants (e.g., aq. ammonia), <b>catalysts</b> [e.g., bis(2,6-dimethylmorpholinoethyl) ether], and/or tackifiers (e.g., Hi-Metolose 90-SM-400, Nospole).				
ST	foamable adhesive <b>roofing</b> waterproofing bonding; <b>polyurethane</b> foam adhesive waterproofing <b>roofing</b> ; surfactant <b>polyurethane</b> foam adhesive <b>roofing</b> ; catalyst <b>polyurethane</b> foam adhesive <b>roofing</b> ; tackifier <b>polyurethane</b> foam adhesive <b>roofing</b>				
IT	Blowing agents Catalysts Roofing Surfactants Tackifiers (foamable adhesives for waterproofing bonding of <b>roofing</b> )				
IT	<b>Polyurethanes</b> ; uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (foamable <b>adhesives</b> ; foamable <b>adhesives</b> for waterproofing bonding of <b>roofing</b> )				
IT	Adhesives (foamable; foamable adhesives for waterproofing bonding of <b>roofing</b> )				
IT	186844-98-4, Hi-Metolose 90SM400 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (tackifiers; foamable adhesives for waterproofing bonding of <b>roofing</b> )				
IT	103251-80-5 RL: CAT (Catalyst use); USES (Uses) ( <b>catalysts</b> ; foamable adhesives for waterproofing bonding of <b>roofing</b> )				

KATHLEEN FULLER EIC 1700 308-4290

roofing)  
 IT 7631-86-9, Aerosil 200, uses 9010-76-8, Expancel 551DE  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (foamable adhesives for waterproofing bonding of roofing)  
 IT 159074-37-0, Meiwazol CX 3H5 Conc  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (foamable adhesives, Meiwazol CX-BH 5 Conc; foamable adhesives for waterproofing bonding of roofing)  
 IT 186844-79-1, Sanprene NCG 1000  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (foamable adhesives, Sanprene NCG 1000; foamable adhesives for waterproofing bonding of roofing)  
 IT 7664-41-7, Ammonia, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (surfactants; foamable adhesives for waterproofing bonding of roofing)  
 IT 186844-82-6, Nosuporu  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (tackifiers; foamable adhesives for waterproofing bonding of roofing)

L50 ANSWER 18 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:2274 HCAPLUS

DN 126:33196

TI Polyurethane-based waterproof composites and their application process

IN Kaneko, Masaichi; Takahashi, Susumu

PA Dainippon Ink & Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM E04G021-24

ICS B05D005-00; B05D007-24; B32B027-30; B32B027-40

CC 42-11 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08260708	A2	19961008	JP 1995-61303	19950320
AB	The title <b>composites</b> , useful for roof waterproofing, comprise (a) a PVC waterproof sheet, (b) a <b>polyurethane adhesive layer</b> (e.g., Burnock D-750-contg. Pandex T-5205D-1 or Pandex T-5260S35MT soln.), and (c) a polyurethane waterproof coating (e.g., DIC Urethane JS with glass cloth-inserted), and formed by applying the <b>polyurethane adhesive soln.</b> on a PVC sheet-covered roof, drying the adhesive, and applying the <b>polyurethane coating</b> .				
ST	PVC sheet polyurethane waterproof composite; adhesive <b>polyurethane waterproof composite roofing</b> ; glass cloth reinforced polyurethane waterproof roofing; crosslinker <b>polyurethane adhesive waterproof roofing</b>				
IT	<b>Adhesives</b> <b>Roofing</b> (polyurethane-based waterproof composites and their application process)				
IT	Laminated plastics, uses RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses) (polyurethane-based waterproof composites and their				

KATHLEEN FULLER EIC 1700 308-4290

application process)  
 IT Polyurethanes, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyurethane-based waterproof **composites** and their application process)  
 IT Water-resistant coatings  
 (polyurethane-based, two-component; polyurethane-based waterproof **composites** and their application process)  
 IT 106908-47-8, Pandex T-5260S35MT 156229-26-4, Pandex T-5205D-1  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (adhesives; polyurethane-based waterproof **composites** and their application process)  
 IT 50813-68-8, Burnock D-750  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (crosslinking agents; polyurethane-based waterproof **composites** and their application process)  
 IT 9002-86-2, PVC  
 RL: MSC (Miscellaneous); TEM (Technical or engineered material use); USES (Uses)  
 (films; polyurethane-based waterproof **composites** and their application process)  
 IT 184654-50-0, DIC-Urethane JS  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (polyurethane-based waterproof **composites** and their application process)

L50 ANSWER 19 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:271369 HCAPLUS

DN 124:345467

TI **Composite** sheets for waterproofing buildings and waterproofing of the sheets

IN Matsumoto, Yukio; Kamemura, Ichiro

PA Asahi Glass Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-12

ICS B32B027-36; E04B001-66

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08048007	A2	19960220	JP 1994-184517	19940805
AB	Water-resistant <b>composite</b> sheets are prepd. by laminating two sides of polyester films 10-200 .mu.m thick with polyester nonwoven fabrics, coating the back of the sheets with adhesives or water-resistant materials, and forming a water-resistant polyurethane <b>layer</b> on the top of the sheets. The sheets are useful for waterproofing <b>roofings</b> , balconies, verandas, and open areas (no data). Applying a <b>polyurethane adhesive</b> onto a concrete panel, bonding a polyester nonwoven-polyester film laminate to the panel, coating the surface of the material with a water-resistant polyurethane, and forming a urethane acrylate topcoat <b>layer</b> gave a water-resistant <b>composite</b> sheet showing good <b>interlayer</b> adhesion.				
ST	polyester <b>composite</b> sheet water resistant; nonwoven polyester <b>composite</b> sheet water resistant; building waterproofing polyester <b>composite</b> sheet; polyurethane waterproofing agent <b>composite</b> sheet				

KATHLEEN FULLER EIC 1700 308-4290

IT Polyesters, uses  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (films, **composites** with polyester nonwoven fabrics; waterproofing with polyurethanes)

IT Waterproofing  
 (of polyester nonwoven-polyester film **composite** sheets with polyurethanes)

IT Building materials  
 (water-resistant polyester nonwoven-polyester film **composite** sheets coated with polyurethanes)

IT Urethane polymers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (waterproofing agents; for polyester nonwoven-polyester film **composite** sheets)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (nonwoven, **composites** with polyester films; waterproofing with polyurethanes)

L50 ANSWER 20 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1997-226717 [21] WPIDS  
 DNN N1997-187524 DNC C1997-072718  
 TI Improved adhesion and wet out property-contg. polyurethane **layer**  
 - prepd. from opt. reactive opt. nonionic or ionic polar material for specified polar contribution to surface energy, for carpet backing, etc..  
 DC A25 A84 F08 P27 P73  
 IN MARKUSCH, P H; ROSTHAUSER, J W  
 PA (FARB) BAYER CORP  
 CYC 2  
 PI CA 2168516 A 19960811 (199721)\* 39p C08J009-00  
 US 5723194 A 19980303 (199816) 10p B32B003-02 <--  
 ADT CA 2168516 A CA 1996-2168516 19960131; US 5723194 A Div ex US 1995-386583  
 19950210, US 1996-643436 19960508  
 PRAI US 1995-386583 19950210; US 1996-643436 19960508  
 IC ICM **B32B003-02**; C08J009-00  
 ICS A47G027-02; **B32B027-00**  
 AB CA 2168516 A UPAB: 19970522  
 A polyurethane **layer** having surface energy 45 - 70 dynes/cm at room temp. is formed on a substrate from a reactive mixt. comprising:  
 (A) a cpd. contg. isocyanate gps.;  
 (B) a non-polar organic cpd. contg. isocyanate-reactive H; and  
 (C) material(s) of:  
 (i) reactive non-ionic polar materials,  
 (ii) reactive ionic polar materials,  
 (iii) non-reactive polar materials, or  
 (iv) mixts..  
 Sufficient (C) is present so the polar contribution towards the surface energy is 10 - 40 dynes/cm.  
 Also claimed are:  
 (a) a polyurethane **layer** formed on a substrate from a reaction mixt. comprising (I) an isocyanate-terminated **prepolymer** compsn. prepd. by reacting (A) as above with (C) (i), (C) (ii) or (C) (iv); and (II) (B) as above;  
 (b) a polyurethane **layer** formed on a substrate from a reaction mixt. comprising (I) (A) as above; and (II) a blend of (B) as above and (C) as above;  
 (c) a polyurethane **layer** formed on a substrate from a reaction mixt. comprising (I) as (a) (I) above; and (II) as (b) (II) above;  
 (d) a unitary carpet backing formed by applying the above reactive mixt. to the back of a carpet; and  
 (e) a carpet backing precoat formed by applying the above reactive mixt. to the back of a carpet, allowing the reactive mixt. to cure, and

KATHLEEN FULLER EIC 1700 308-4290



forming a second polyurethane or polyurethane-urea layer on top;

(f) a unitary carpet backing formed by applying the reactive mixt. in (a) to the back of a carpet;

(g) a carpet backing precoat formed by applying the reactive mixt. of (a) to the back of a carpet;

(h) a unitary carpet backing formed by applying the reactive mixt. of (b) to the back of a carpet;

(i) a carpet backing precoat formed by applying the reactive mixt. of (b) to the back of a carpet;

(j) a unitary carpet backing formed by applying the reactive mixt. of (c) to the back of a carpet; and

(k) a carpet backing precoat formed by applying the reactive mixt. of (c) to the back of a carpet.

USE - The polyurethane layers are useful as unitary carpet backings and precoat layers for carpet backing (claimed); coatings, esp. primers; adhesives, esp. for laminating plastic sheets; filled, spray polyurethane elastomers used in structural applications e.g. whirlpools, spas, baths; roofing membranes; sound dampening foams; foam shoe inlays; energy absorbing foams; carpet padding; etc.

ADVANTAGE - The polyurethane layers have improved adhesion and wet-out properties.

Dwg.0/0

FS CPI GMPI

FA AB

MC CPI: A05-G01E; A12-D02; F04-B; F04-D04

L50 ANSWER 21 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:662865 HCAPLUS

DN 123:230791

TI Solvent-free, organo clay-filled asphaltic polyurethane dispersion adhesives, their manufacture and their uses

IN Janoski, Ronald J.

PA Tremco, Inc., USA

SO U.S., 10 pp. Cont.-in-part of U.S. 5,253,461.

CODEN: USXXAM

DT Patent

LA English

IC ICM C09D195-00

NCL 106278000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5421876	A	19950606	US 1993-138562	19931018

PRAI US 1990-633561 19901221

AB Title adhesives, which are storage-stable at -20 to +75.degree. under anhyd. conditions and are preferably useful for roofing components, comprise liq. polyurethane prepolymers and microdispersed asphalt blends consisting of asphalt particles of 1-100 .mu.m and 0.05-10% (based on total asphalt blends) quaternary long chain fatty amine-bonded clay platelets (as fillers and compatibilizers). A sprayable adhesive dispersion may be formed by dilg. the organo clay-compatibilized dispersion with a plasticizer which, together with the asphalt and organo clay, becomes an integral part of the elastomer when the polyurethane is cured. A sprayable adhesive contg. polyoxypropylene triol-MDI copolymer, a compatibilizer-contg. quaternary fatty amine-modified organo clay/asphalt blend, a silane, acetylene black, and benzylbutyl phthalate was used on rubber or rigid panels.

ST quaternary ammonium organoclay compatibilizer polyurethane asphalt; solventless asphalt urethane rubber adhesive roof; storage stability solventless asphalt polyurethane adhesive

IT Quaternary ammonium compounds, uses

KATHLEEN FULLER EIC 1700 308-4290

RL: MOA (Modifier or additive use); USES (Uses)  
 (clay complexes; solventless and organo clay-filled asphalt/  
**urethanerubber** dispersion adhesives)

IT Clays, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (organo; solventless and organo clay-filled asphalt/  
**urethanerubber** dispersion adhesives)

IT Roofs  
 (solventless and organo clay-filled asphalt/**urethane** rubber  
 dispersion adhesives)

IT Asphalt  
 Rubber, urethane, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (solventless and organo clay-filled asphalt/**urethanerubber**  
 dispersion adhesives)

IT Adhesives  
 (solventless, organo clay-filled asphalt/**urethane** rubber  
 dispersion adhesives for roofs)

IT 101-68-8D, MDI, polymers with polyoxypropylene triols  
 25322-69-4D, Polypropylene glycol, triol derivs., polymers with MDI  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (rubber; solventless and organo clay-filled asphalt/  
**urethanerubber** dispersion adhesives)

IT 1318-93-0, Montmorillonite, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (solventless and organo clay-filled asphalt/**urethanerubber**  
 dispersion adhesives)

L50 ANSWER 22 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1995:835519 HCAPLUS  
 DN 123:230695  
 TI Fastener-free **roofing** system with polymer adhesives  
 for low-slope **roof** decks  
 IN Janoski, Ronald J.; Rudolph, Gregory J.; Gibson, Richard J.; Portfolio,  
 Donald C.  
 PA USA  
 SO Can. Pat. Appl., 43 pp.  
 CODEN: CPXXEB  
 DT Patent  
 LA English  
 IC ICM C09J195-00  
 ICS C09J175-04; E04D011-02  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 55, 58

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2101713	AA	19950131	CA 1993-2101713	19930730

PI A rigid panel is attached to the **roof** deck by applying a  
 AB flowable polymer **adhesive** to the deck, and placing the panel for  
 bonding by the hardened **adhesive**, without conventional use of  
 nails and similar fasteners. The **adhesive** contains .gtoreq.10  
 wt.% curable liq. **prepolymer** without solvents or a water-based  
 emulsion, and is suitable for bonding of rigid insulation panels to a  
 steel deck equipped with spaced ribs. The liq. **prepolymer** (esp.  
 an isocyanate) preferably contains dispersed bitumen, asphalt, coal tar  
 with compatibility promoters of propylene glycol monostearate (I) type.  
 The cure time of **adhesive** at 18-22.degree. is <24 h (preferably  
 <2 h), and the resulting panel is resistant to uplift loads of 90 lb/ft<sup>2</sup>.  
 The typical **prepolymer** contains polyether triol 34, Bu benzyl  
 phthalate 7, MDI 7 parts (based on **adhesive**), and Sn  
**catalyst** at nominally 1 ppm, and is mixed with preheated  
 industrial asphalt 38, colloidal SiO<sub>2</sub> as thixotropic filler 1, CaCO<sub>3</sub>  
 powder 4, and I 0.5 part.

KATHLEEN FULLER EIC 1700 308-4290

ST roof deck bonding adhesive liq prepolymer;  
bitumen mixt prepolymer adhesive roof panel;  
steel roof deck bonding panel adhesive

IT Asphalt  
Bitumens  
RL: POF (Polymer in formulation); USES (Uses)  
(adhesives contg. dispersed; polymer adhesives for  
panel bonding to low-slope roof decks)

IT Urethane polymers, uses  
RL: POF (Polymer in formulation); USES (Uses)  
(adhesives contg.; polymer adhesives for panel  
bonding to low-slope roof decks)

IT Adhesives  
(liq. prepolymer; polymer adhesives for panel  
bonding to low-slope roof decks)

IT Roofs  
(low-slope; polymer adhesives for panel bonding to low-slope  
roof decks)

IT Tar  
RL: POF (Polymer in formulation); USES (Uses)  
(coal, adhesives contg. dispersed; polymer adhesives  
for panel bonding to low-slope roof decks)

IT Urethane polymers, uses  
RL: POF (Polymer in formulation); USES (Uses)  
(polyether-, adhesives contg.; polymer adhesives  
for panel bonding to low-slope roof decks)

IT 471-34-1, Calcium carbonate, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(adhesives contg. powd.; polymer adhesives for  
panel bonding to low-slope roof decks)

IT 85-68-7, Butyl benzyl phthalate 101-68-8, Diphenyl methane  
diisocyanate 106-06-9, Triethylene glycol dipelargonate  
111-60-4, Ethylene glycol monostearate 1323-39-3, Propylene glycol  
monostearate 7346-78-3, Triethylene glycol caprate caprylate  
26403-62-3, Polypropylene glycol distearate  
RL: MOA (Modifier or additive use); USES (Uses)  
(adhesives contg.; polymer adhesives for panel  
bonding to low-slope roof decks)

IT 7631-86-9, Silica, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(colloidal, adhesives contg.; polymer adhesives for  
panel bonding to low-slope roof decks)

IT 12597-69-2, Steel, uses  
RL: DEV (Device component use); USES (Uses)  
(roof decks; polymer adhesives for panel bonding to  
low-slope roof decks)

L50 ANSWER 23 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1995-292391 [38] WPIDS  
CR 1996-138772 [14]  
DNN N1995-221175 DNC C1995-131656  
TI Adhering cover to roof substrate by pressure dispensing adhesive  
beads - via primary tube leading to multiple secondary and application  
tubes to reduce application time.  
DC A35 A93 P73  
IN EATON, R; PARTYKA, D; WILSON, R  
PA (INST-N) INSTA-FOAM PROD INC  
CYC 1  
PI US 5441583 A 19950815 (199538)\* 8p B32B007-14  
ADT US 5441583 A Div ex US 1992-835195 19920213, US 1993-112650 19930826  
PRAI US 1992-835195 19920213; US 1993-112650 19930826  
IC ICM B32B007-14  
AB US 5441583 A UPAB: 19960417  
A cover is adhered to a roof substrate by dispensing under  
KATHLEEN FULLER EIC 1700 308-4290

pressure equal-size beads of adhesive onto the substrate in a single pass, applying the cover, and allowing the adhesive to cure. The dispenser has a primary tube (230) connected to a pressurised supply and to multiple equal-length secondary tubes (232, 233) connected to multiple application tubes (240-243). In partic., the cover is a flexible elastomeric membrane, the substrate includes an insulation board, or the cover is rigid insulation board and the substrates includes insulation board or steel decking. The adhesive is pref. a non-expanding **moisture-cured frothed urethane prepolymer**, or is an **adhesive foam**. Insulation board is e.g. of extruded polystyrene or cork.

USE - For **roofing** installation or reconstruction.

ADVANTAGE - Reduces the time required for application of adhesive.

Dwg:3/7

FS CPI GMPI

FA AB; GI

MC CPI: A11-C01C; A11-C02; A12-R05; A12-R06

L50 ANSWER 24 OF 71 COMPENDEX COPYRIGHT 2000 EI

AN 1995(34):668 COMPENDEX

TI Fire risks of insulated panels in the food industry.

AU Brooke, Philip (Allied Colloids)

SO Fire Prevention n 279 May 1995.p 25-27

CODEN: FPRVD7 ISSN: 0309-6866

PY 1995

DT Journal

TC General Review

LA English

AB A series of large losses from fires in the food industry involving insulated metal-faced panels has focused on the behavior of these 'sandwich panels' in fire. Reports of the fires revealed that they became dangerous to fight due to the hidden nature of the fire within panels. A **composite**, or sandwich, panel comprises an outer and inner metal skin with a core of insulation sandwiched between. Panels are used extensively in the food processing industry in manufacturing, storage and distribution areas. Their insulation cores are mostly combustible expanded polystyrene or rigid **polyurethane**. The main fire protection risk is that the plastic is not totally encapsulated.

CC 914.2 Fires and Fire Protection; 408.2 Structural Members and Shapes; 413.2 Heat Insulating Materials; 815.1.1 Organic Polymers; 822.1 Food Products Plants and Equipment; 902.3 Legal Aspects

CT \*Fire protection; Thermal insulating materials; Sealing (closing); Fire hazards; Polystyrenes; Fire detectors; **Roofs**; Food products plants; Laws and legislation; Structural panels

ST Fire risks; Insulated sandwich panels

L50 ANSWER 25 OF 71 COMPENDEX COPYRIGHT 2000 EI DUPLICATE 2

AN 1995(25):2323 COMPENDEX

TI Avoiding field delamination with moisture-cure **urethane**.

AU Anon

SO Adhesives Age v 38 n 1 Jan 1995.p 24-25

CODEN: ADHAAO ISSN: 0001-821X

PY 1995

DT Journal

TC Application

LA English

AB To address field delamination of laminated walls, **roofs** and floors of its recreational vehicle, Coachmen Recreational Vehicle Co converted from solvent-based **adhesives** to a new environment-friendly, one-part, 100 percent solids, moisture-curing **urethane** laminating **adhesive** from Pierce and Stevens Corp (Buffalo, NY). As a result, Coachmen RV increased product quality by eliminating field delaminations, reduced the emission of harmful volatile organic compounds (VOCs) into the atmosphere and increased the life span

KATHLEEN FULLER EIC 1700 308-4290

of its RVs. After a gradual transition to the compliant moisture-curing urethane adhesive technology, the company expanded the usage to cover all the units manufactured daily.

CC 804.1 Organic Components; 421 Strength of Building Materials. Mechanical Properties; 415 Metals, Plastics, Wood and Other Structural Materials; 662 Automobiles and Smaller Vehicles; 801.4 Physical Chemistry; 454.2 Environmental Impact and Protection

CT \*Adhesives; Laminates; Organic compounds; Ground vehicles; Volatile organic compounds; Environmental protection; Service life; Sandwich structures; Quality control; Delamination

ST Urethane adhesives; Recreational vehicles; Moisture curing adhesives

ET Co; Cs\*O\*V; Cs sy 3; sy 3; O sy 3; V sy 3; VOCs; V cp; cp; O cp; Cs cp

L50 ANSWER 26 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:207530 HCAPLUS

DN 122:33209

TI Substantially solventless microdispersions of asphalt in liquid prepolymers and compatibilizers for forming them and their uses

IN Janoski, Ronald J.

PA Tremco, Inc., USA

SO U.S., 11 pp. Cont. of U.S. Ser. No. 497,048, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08L095-00

NCL 524059000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 39, 42

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5319008	A	19940607	US 1992-858453	19920327
	AU 9172748	A1	19911003	AU 1991-72748	19910308
	AU 644142	B2	19931202		

PRAI US 1990-497048 19900321

OS MARPAT 122:33209

AB The title dispersion can be cured to an elastomer having excellent adhesion to surfaces exposed outdoor, and is useful for coatings, adhesives, caulks, etc. The stability of the dispersion is derived from asphalt being microdispersed (at 0.5-100 .mu.m size) in a continuous phase of the liq. prepolymer. The asphalt is treated to react all functional groups it may have because they may react with a functional group of the liq. prepolymer. The prepolymer is a polyurethane, a terpolymer of ethylene-propylene-diene, or a silicone. The microdispersion is stabilized by a compatibilizer chosen from an ester of a C2-12 branched or straight chain polyol; a mono- or diester of a polyether polyol; an ester of a polyester polyol and a C9-24 fatty acid; an ester of a polyether diol such as a poly(C5-6)alkadiene diol and, a polydimethylsiloxane diol; or an ester of a polyester polyol having a repeating unit derived from acrylic acid and a polyol selected from the group consisting of a C2-12 alkylene diol, or triol; and a polyoxy(C2-4)alkylene diol.

ST solventless asphalt polymer microdispersion curability elastomer; adhesive solventless asphalt polymer microdispersion elastomer; sealing solventless asphalt polymer microdispersion elastomer; caulking solventless asphalt polymer microdispersion elastomer; coating solventless asphalt polymer microdispersion elastomer

IT Rubber, butyl, uses

Rubber, silicone, uses

Rubber, urethane, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(binders; solventless microdispersion of asphalt in liq. prepolymers

KATHLEEN FULLER EIC 1700 308-4290

- and compatibilizers for forming and use)
- IT Asphalt  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(blocked; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Esters, uses  
RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
(compatibilizer; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Adhesives  
(roofing; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming)
- IT Caulking compositions  
(solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for)
- IT Rubber, synthetic  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(EPDM, binders; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Rubber, urethane, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(acrylonitrile-butadiene-isophorone diisocyanate, binder; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Adhesives  
(hot-melt, solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Polyoxyalkylenes, uses  
RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
(hydroxy-terminated, esters with polycarboxylic acids, compatibilizers; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Siloxanes and Silicones, uses  
RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
(hydroxy-terminated, reaction products, of 1352N2E with stearic acid; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Rubber, nitrile, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(hydroxy-terminated, reaction products, with IPDI, of Hycar 1300X34; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Rubber, synthetic  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(isobutylene, binders; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
(poly-, esters with hydroxy-terminated polyoxyalkylenes, compatibilizers; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Rubber, urethane, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polyester-, binders; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)

- IT Rubber, urethane, uses  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyoxyalkylene-, binders; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT Coating materials  
 Sealing compositions  
 (weather-resistant, solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for)
- IT 57-11-4D, Octadecanoic acid, reaction products with silicone diol  
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
 (blocking agents; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT 108-31-6D, 2,5-Furandione, asphalt blocked by 4083-64-1, p-Toluenesulfonyl isocyanate  
 RL: RCT (Reactant)  
 (blocking agents; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT 57-11-4D, Octadecanoic acid, esters 57-55-6D, 1,2-Propanediol, esters 112-05-0D, Pelargonic acid, esters 112-80-1D, Oleic acid, esters 126-30-7D, esters 143-07-7D, Lauric acid, esters 1323-39-3, Propylene glycol monostearate 15337-64-1, 1,4-Butanediol monostearate 159806-32-3D, esters 159940-17-7 159940-32-6  
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)  
 (compatibilizer; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT 9010-85-9  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (rubber, binders; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT 9003-18-3  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (rubber, hydroxy-terminated, reaction products, with IPDI, of Hycar 1300X34; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)
- IT 101-68-8D, polymers with polyether polyols 4098-71-9D, polymers with hydroxy-terminated nitrile rubber 9003-18-3D, Acrylonitrile-butadiene copolymer, hydroxy-terminated, polymers with IPDI 9003-27-4 9016-00-6, Polydimethylsiloxane 25038-59-9D, PET polyester, polyols, polymers with polyether-polyols and MDI 25322-69-4D, Polyoxypropylene glycol, triol deriv., polymers with polyisocyanates 31900-57-9, Dimethylsilanediol polymer 56815-45-3, Adipic acid-1,4-butanediol-MDI-neopentyl glycol copolymer 159806-34-5  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (rubber; solventless microdispersion of asphalt in liq. prepolymers and compatibilizers for forming and use)

L50 ANSWER 27 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1993:651732 HCAPLUS

DN 119:251732

TI Composite sheet membranes, their manufacture and uses

IN Humby, Geoffrey John

PA Australia

SO Pat. Specif. (Petty) (Aust.), 16 pp.

CODEN: AUXXDN

DT Patent

LA English

IC ICM B32B005-02

ICS B32B025-08; B32B025-10; B32B027-12; E04D005-02; E04D005-10;

KATHLEEN FULLER EIC 1700 308-4290

D06N007-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	AU 637565	B3	19930527	AU 1992-20671	19920728
AB	The title membranes, useful for bonding to flat roof surfaces, roads, and surfaces of building excavations, comprise a first layer of a flexible material selected from synthetic rubber and thermosetting or thermoplastic materials, and a second layer of a fiber or fleece-like matting secured to the first layer by a polyurethane foam adhesive. A portion of the matting is adapted to be embedded within a layer of the polyurethane adhesive that is applied on a roof or similar surface, so that the membrane attaches to the surface and provides an intimate covering.				
ST	composite sheet membrane; rubber fleecy matting composite sheet; fiber matting composite sheet; thermoplastic composite sheet membrane; thermosetting composite sheet membrane; polyurethane adhesive composite sheet membrane; roof composite sheet membrane				
IT	Urethane polymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (adhesives, for plastic or rubber composites)				
IT	Roofs (composite membranes for)				
IT	Rubber, synthetic RL: USES (Uses) (composites with fleecy matting of fiber material, membranes, manuf. and uses of)				
IT	Polyester fibers, uses RL: USES (Uses) (fleecy, nonwoven, composites with rubber or plastics, for membranes)				
IT	Adhesives (polyurethane, for rubber or plastic composites)				
IT	Rubber, synthetic RL: USES (Uses) (EPDM, composites with fleecy matting of fiber material, membranes, manuf. and uses of)				
IT	Plastics RL: USES (Uses) (thermo-, composites with fibrous or fleecy material, manuf. and uses of)				
IT	Plastics RL: USES (Uses) (thermosetting, composites with fibrous or fleecy material, manuf. and uses of)				
IT	74-85-1P RL: PREP (Preparation) (rubber, EPDM, composites with fleecy matting of fiber material, membranes, manuf. and uses of)				
L50	ANSWER 28 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD				
AN	1993-344424 [43] WPIDS				
CR	1995-214553 [28]				
DNN	N1993-265907 DNC C1993-152630				
TI	Fastener-free roofing system with good wetting and penetration - comprises rigid panel insulation secured to roof deck using adhesive contg. asphalt and compatibiliser dispersed in isocyanate polyurethane prepolymer.				
DC	A25 A93 E19 Q43 Q45 Q46				

KATHLEEN FULLER EIC 1700 308-4290



IN GIBSON, R J; JANOSKI, R J; PORTFOLIO, D C; RUDOLPH, G J; RUDOLPH, G  
 PA (JANO-I) JANOSKI R J; (TRED) TREMCO INC  
 CYC 3  
 PI US 5253461 A 19931019 (199343)\* 12p E04B001-74  
 CA 2101713 A 19950131 (199517)# C09J195-00  
 MX 187391 B 19971209 (199936)# E04B001-074  
 ADT US 5253461 A US 1990-633561 19901221; CA 2101713 A CA 1993-2101713  
 19930730; MX 187391 B MX 1993-5234 19930827  
 PRAI US 1990-633561 19901221; CA 1993-2101713 19930730; MX 1993-5234  
 19930827  
 IC ICM C09J195-00; E04B001-074; E04B001-74  
 ICS C09J175-04; E04D011-02; E04G023-00  
 AB US 5253461 A UPAB: 19950727

System comprises a roof deck of metal, concrete, gypsum or wood substrate, having a slope of less than 25 deg. w.r.t. the horizontal and rigid panel insulation, including prefabricated boards and poured insulating concrete fills, having adequate shear strength to distribute tensile stresses in a membrane to prevent it splitting, compressive strength to withstand traffic, and adhesive and cohesive strength to resist delamination due to wind uplift forces of up to 90 lb/sq.ft.. The insulation is secured to the deck, without the need for mechanical fasteners, by an adhesive which in its uncured state is a flowable liq. or semi-liq. at room temp. but which cures within 10 hrs.. the adhesive comprises asphalt, a compatibiliser (I), and opt. a filler or a non-reactive diluent (II), dispersed in at least 20wt.% of a curable liq. NCO-endcapped polyurethane prepolymer (III).

(I) contains non-polar and polar components and is a polymeric material consisting of a polymer unit (or two such units which are either identical or different and linked together by an ester, carbon or ether bond) of formula  $\text{CH}_3(\text{CH}_2)_n\text{R}_1$  n is 4 or above; R1 is COOH, COO-M+, COOR2 or R2, M is a metal and R2 is a satd. organic chain with backbone of C-C, C-O and/or C-N linkages, and pendent H or OH gps., contg. at least one OH. The asphalt pref. has softening pt. about 120 deg. F and is treated with a blocking cpd. (e.g. an anhydride) to kill reactive gps. and moisture.

(III) is the reaction prd. of 5-20 wt.% aromatic diisocyanate (e.g. MDI), 25-65 wt.% polyol (e.g. polyether polyol adduct), and 5-20 wt.% of (II) which is pref. a plasticiser e.g. butyl benzyl phthalate (BBP). 5 pref.

(I) are claimed, e.g. propylene glycol monostearate (PGMS), bis-stearate of polypropylene glycol, ethylene glycol monostearate, triethylene glycol caprate caprylate, and triethylene glycol dipelargonate. Pref. adhesives contain 15-75 wt.% asphalt, at least 0.01 wt.% (I), and 25075 wt.% (III), and are stable at room temp. for at least 30 days. A typical application is 50 ml/sq.ft. insulation panel on CRS decking with 1 X 1 in. ribs at 6 in. centres, with cure in less than 2 hrs at 20 deg. C and 35-95% RH.

USE/ADVANTAGE - The adhesives have desirable wetting and penetration characteristics and cure rapidly at ambient temp. and humidity to give a temp.-insensitive bond producing a reliable fastener-free roofing system which is inexpensive, easy to install, and less prone to failure than conventional flat roof systems.

Dwg.1/1

Dwg.1/1

FS CPI GMPI  
 FA AB; GI; DCN  
 MC CPI: A03-C03; A05-G01E; A07-A01A; A08-M10; A11-C01C; A12-R05; E10-G02G

L50 ANSWER 29 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1993-339961 [43] WPIDS

DNN N1993-262427 DNC C1993-150892

TI Waterproof sealing material for use on flat roofs - formed by laminating independent foaming body layer, pressure sensitive adhesive layer, peeling layer and opt. metal layer or fluoro-resin layer.

DC A93 G03 P73 Q45

PA (TAJI-N) TAJIMA ROOFING CO

CYC 1

KATHLEEN FULLER EIC 1700 308-4290

PI JP 05247440 A 19930924 (199343)\* 4p C09K003-10  
 ADT JP 05247440 A JP 1992-81586 19920303  
 PRAI JP 1992-81586 19920303  
 IC ICM C09K003-10  
 ICS B32B005-18; C09J007-02; E04D005-14  
 AB JP 05247440 A UPAB: 19931207

The waterproof sealing material is formed by laminating (a) an independent foaming body layer, a pressure sensitive adhesive layer, and a peeling layer; (b) a metal layer, an adhesive layer (A), an independent foaming body layer, a pressure sensitive adhesive layer, and a peeling layer; (c) a fluoro-resin layer, an adhesive layer (B), an independent foaming body layer, a pressure sensitive adhesive layer, and a peeling sheet; or (d) a fluoro-resin layer, an adhesive layer (B), a metal layer, an adhesive layer, (A), an independent foaming body layer, a pressure sensitive adhesive layer, and a peeling sheet.

The independent foaming body layer pref. comprises a synthetic resin, natural rubber, or synthetic rubber. The metal layer comprises Al, Pb, Sn, Zn, or their alloy. The pressure sensitive adhesive layer comprises a synthetic resin, synthetic rubber, natural rubber, or reclaimed rubber. The fluoro-resin resin comprises a fluorine-contd. resin. The adhesive layer (A) comprises an epoxy resin, chloroprene, or cyanoacrylate. The adhesive layer (B) comprises acryl urethane-, or polyester urethane-based adhesive. The peeling sheet comprises peeling paper.

USE/ADVANTAGE - The waterproof sealing material is used in waterproof sheets, or waterproof panels used in flat roofs. It is used in the joint sections of the waterproof sheets or the waterproof panels. The use of the waterproof sealing material completely prevents water leakage.

Dwg.0/10

FS CPI GMPI  
 FA AB  
 MC CPI: A04-E10; A11-B09A2; A12-R05; A12-S04B; G03-B04

L50 ANSWER 30 OF 71 COMPENDEX COPYRIGHT 2000 EI

AN 1994(23):1867 COMPENDEX

TI Required properties of injection material for strata consolidation.  
 Anforderungen an Injektionsmittel fuer die Gebirgsverfestigung.

AU Gemmel, Dietrich-Wilhelm (E-Plus Mobilfunk GmbH)

SO Glueckauf-Forschungshefte v 54 n 6 Dec 1993.p 271-277

CODEN: GKFRRA ISSN: 0017-1387

PY 1993

DT Journal

TC Application; Experimental

LA German

AB Cement suspensions and different artificial resins are used to consolidate cut strata beds in gateroad roofs. Three properties of the injection material are relevant to the success of the injection measures: **adhesiveness**, deformability and penetrative capacity. Artificial resins possess adequate **adhesiveness** after a few hours setting time, while cement suspensions only achieve appreciable **adhesiveness** after 24 h at the earliest. The deformability of silicate resins and of hardened cements up to the break of the adhesion join is extremely slight, whereas **polyurethanes** have almost ideal deformation properties. Penetration of artificial resins is better than that of injection cements. The relatively low viscosity and foaming of the **polyurethanes** means that they have very high penetrating powers as compared with other injection materials. Comparative underground trials in several gateroads showed that injection materials based on **polyurethane**, silicate resin and fine cement suspension will improve the condition of the strata edge, that injection success is greater with **polyurethanes** than with silicate resins, and that these are more likely to reduce roof falls than with fine cement suspensions. (Author abstract) 12 Refs.

CC 502.1 Mine and Quarry Operations; 804 Chemical Products Generally; 817.2

KATHLEEN FULLER EIC 1700 308-4290

Plastics Applications; 931.1 Mechanics

CT \*Mines; Cements; Suspensions (fluids); Plastics applications; Viscosity;  
**Polyurethanes**; Silicate minerals; Polymers

ST Injection materials; Strata consolidation; Cement suspensions; Artificial  
 resins; Silicate resins

L50 ANSWER 31 OF 71 RAPRA COPYRIGHT 2000 RAPRA

AN R:501681 RAPRA FS Rapra Abstracts; Adhesives Abstracts

TI **ROOFING ADHESIVE.**

SO Adhesives Age 36, No.13, Dec.1993, p.8  
 ISSN: 0001-821X  
 CODEN: ADHAAO

PY 1993

DT Journal

LA English

AB A **polyurethane-based moisture cured**  
**roof insulation adhesive** has been introduced by  
 InstaFoam Products Inc. The article supplies brief details of the  
 products, named Insta-Stik.

CC 6A1; 6R43; 6L3; 43C6; 8.10.1

SC \*QB; QP; QL; KT; SK  
 \*ADANJ; ADALF

CT **ADHESIVE**; BOARD; COMPANY; COMPOSITE; INSULATION; **MOISTURE**  
**CURING**; PLASTIC; POLYISOCYANURATE; **POLYURETHANE**; PRODUCT  
 ANNOUNCEMENT; REINFORCED PLASTIC; **ROOFING**; SHORT ITEM;  
 THERMOSET

NPT CALCIUM SULPHATE; GYPSUM; PERLITE; CALCIUM SULFATE

SHR **ADHESIVES**, roofing insulation, PU; INSULATION,  
 roofs, adhesives; **URETHANE** POLYMERS,  
 roof insulation adhesives; ROOFS, insulation  
 adhesives

SHA **URETHANE** POLYMERS, roofing insulation; BUILDING  
 APPLICATIONS, roofing insulation

CO INSTAFOAM PRODUCTS INC.

GT USA

TN INSTA-STIK

L50 ANSWER 32 OF 71 RAPRA COPYRIGHT 2000 RAPRA

AN R:549752 RAPRA FS Rapra Abstracts; Adhesives Abstracts

TI WEATHER STOPS HERE! ALFAS SEALANTS PRODUCTS & APPLICATION GUIDE.

CS Alfaf Industries Ltd.

SO Washington, 1991, pp.24. 12ins. 3/2/95. 63Bu-6A2

PY 1991

DT Company Publication

LA English

AB Details are given of sealants for use in building and construction  
 applications from Alfaf. They are in the form of a gunnable sealant, foam  
 sealant strips, and self-adhesive aluminium flashing tapes.  
 Specific applications are detailed for each product along with details of  
 use and performance.

CC 6A2; 6A7; 63Bu

SC \*QB; QP  
 \*ADAJA; ADALF

CT **ADHESIVE TAPE**; APPLICATION; BONDING; BUILDING APPLICATION;  
 BUTYL RUBBER; COMPANY; DATA; ELASTOMER; FACADE; FOAM; FOIL; GAP FILLING;  
 GRAPH; JOINT; **MOISTURE CURING**; PLASTIC; POLYBUTYLENE;  
 POLYISOBUTYLENE; **POLYURETHANE**; POLYVINYL CHLORIDE; PRODUCT  
 ANNOUNCEMENT; PROPERTIES; PU; PVC; ROOF; RUBBER; SEAL; SEALANT;  
**SELF-ADHESIVE**; SPACER; TABLES; TECHNICAL; THERMOPLASTIC;  
 THERMOSET; WALL; WEATHER RESISTANCE; WEATHERING RESISTANCE

SHR SEALANTS, building applications; BUILDING APPLICATIONS, sealants,  
 adhesive tapes; **ADHESIVE** TAPES, sealants, building  
 applications

SHA SEALANTS, building applications; BUILDING APPLICATIONS, sealants,  
 KATHLEEN FULLER EIC 1700 308-4290

adhesive tapes; **ADHESIVE** TAPES, sealants, building applications

GT EUROPEAN COMMUNITY; EUROPEAN UNION; UK; WESTERN EUROPE  
TN ALFAS C; ALFAS BOND; ALFAS FLASH; ALFAS POLY-BUTYL; ALFAS SEAL

L50 ANSWER 33 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1992:237018 HCAPLUS

DN 116:237018

TI Formation of fiber-reinforced thermosetting resin **layers** on concrete or slate, and the resulting **composite** structures

IN Tsuji, Shuya

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B005-00

ICS B32B027-40; E04D007-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03261547	A2	19911121	JP 1990-78929	19900329
	JP 2580829	B2	19970212		
PRAI	JP 1990-16050		19900129		

AB The **composites**, with good waterproofing, salt shielding, and CO2 barrier properties, comprise (a) a fiber-reinforced thermosetting resin **layer**, (b) an adhesive **layer**, (c) a plastic **layer** with elongation (JIS K 6301) .gtoreq.30%, and (d) a concrete or slate substrate. Thus, a concrete substrate was coated with polyurethane to form a 2-mm waterproofing **layer**, covered with a **polyurethane adhesive** at 150 g/m2 (solids), cured, and covered with PolyLite FR 200 and a glass fiber mat to form a **composite** having good peel strength.

ST polyester polyurethane **layer** concrete protection; peel strength concrete polyester polyurethane

IT Rubber, nitrile, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesives, DP Bond E, for thermosetting resin **layers** on concrete or slate)

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesives, for thermosetting resin **layers** on concrete or slate)

IT Plastics, laminated

RL: USES (Uses)  
(fiber-reinforced thermosetting resin and plastic **layers** with concrete or slate)

IT Concrete

(formation of fiber-reinforced thermosetting resin and plastic **layers** on)

IT **Adhesives**

(**polyurethane**-based, for thermosetting resin **layers** on concrete or slate)

IT Urethane polymers, uses

RL: USES (Uses)  
(waterproofing **layers**, on concrete or slate, with fiber-reinforced thermoset surface **layers**)

IT Rubber, butadiene, uses

RL: USES (Uses)  
(of 1,2-configuration, hydroxy-terminated, polymers, with PAPI, adhesives, for thermosetting resin **layers** on concrete or slate)

IT **Roofing**  
 (slate, formation of fiber-reinforced thermosetting resin and plastic layers on)

IT Polyesters, uses  
 RL: USES (Uses)  
 (unsatd., fiber-reinforced, as surface layer on plastic-laminated concrete or slate)

IT 9016-87-9D, polymer with Nisso PB-G 1000 81856-71-5 141189-36-8  
 141581-35-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (adhesives, for thermosetting resin layers on concrete or slate)

IT 141255-99-4, PolyLite FR 200  
 RL: USES (Uses)  
 (fiber-reinforced, as surface layer on plastic-laminated concrete or slate)

IT 9003-18-3  
 RL: USES (Uses)  
 (rubber, adhesives, DP Bond E, for thermosetting resin layers on concrete or slate)

IT 9003-17-2  
 RL: USES (Uses)  
 (rubber, of 1,2-configuration, hydroxy-terminated, polymers, with PAPI, adhesives, for thermosetting resin layers on concrete or slate)

L50 ANSWER 34 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1991:609714 HCAPLUS

DN 115:209714

TI Waterproofing ethylene-propylene terpolymer sheets and their repair

IN Takasugi, Sumio; Yanagisawa, Seiichi; Kawanabe, Minoru; Wanibuchi, Akishige

PA Yokohama Rubber Co., Ltd., Japan; Kyoritsu Chemical Industry Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09J163-00

ICS C09J163-00; E04D005-00; E04D011-00; E04G023-02

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03045681	A2	19910227	JP 1989-181513	19890713
AB	Repair of title sheets (useful as moisture-barrier and waterproofing layers under roof, etc.) is done by bonding them with a PVC or ethylene-propylene terpolymer (I) sheet using an adhesive contg. 100 parts urethane-modified epoxy resin, 20-150 parts tackifier, and a curing agent. Thus, a I sheet and a PVC sheet were bonded together by means of an adhesive contg. a urethane-modified epoxy resin (the urethane was prepd. from glycidol, polytetramethylene glycol, and TDI) 100, Hycar AIBN 1300 .times. 16 (amino-terminated acrylonitrile-butadiene rubber) 100, Adeka Hardener EH 270 20, and chlorinated butyl rubber 70 parts to give a laminate with peel strength 2.4 (normal condition), 2.1 (under water), and 2.4 kg/25 mm (under heating).				
ST	ethylene propylene copolymer waterproofing sheet; urethane modified epoxy resin adhesive; chlorinated butyl rubber tackifier				
IT	Tackifiers (for urethane-modified epoxy resin adhesives for repairing ethylene-propylene terpolymer roof-waterproofing sheets)				
IT	Adhesives				

KATHLEEN FULLER EIC 1700 308-4290

- (urethane-modified epoxy resins, for repairing ethylene-propylene terpolymer roof-waterproofing sheets)
- IT Rubber, butyl, compounds  
RL: USES (Uses)  
(chlorinated, tackifiers, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT Urethane polymers, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(epoxy, adhesives, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT Rubber, butadiene-styrene, uses and miscellaneous  
RL: USES (Uses)  
(hydrogenated, block, triblock, tackifiers, Kraton G 1652, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT Rubber, nitrile, uses and miscellaneous  
RL: USES (Uses)  
(piperazine group-terminated, tackifiers, Hycar ATBN 1300X16, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT Epoxy resins, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyurethane-, adhesives, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 9069-50-5D, reaction products with epoxy resin 135245-43-1D, reaction products with epoxy resin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesives, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 90451-84-6, Adeka EH 270  
RL: CAT (Catalyst use); USES (Uses)  
(crosslinking catalysts, for adhesives for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 9010-85-9  
RL: USES (Uses)  
(rubber, chlorinated, tackifiers, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 106107-54-4  
RL: USES (Uses)  
(rubber, hydrogenated, block, triblock, tackifiers, Kraton G 1652, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 9003-18-3  
RL: USES (Uses)  
(rubber, piperazine group-terminated, tackifiers, Hycar ATBN 1300X16, for repairing ethylene-propylene copolymer roof-waterproofing sheets)
- IT 9002-86-2, PVC  
RL: USES (Uses)  
(sheets for repairing roof-waterproofing sheets, adhesives for)
- IT 74-85-1D, Ethene, terpolymers with propylene 115-07-1D, 1-Propene, terpolymers with ethylene  
RL: USES (Uses)  
(sheets for waterproofing roof, repair of, sheets and adhesives for)

L50 ANSWER 35 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
AN 1992:108093 HCAPLUS  
DN 116:108093  
TI Preparation and uses of solvent-free organic compositions and elastomers  
IN Janoski, Ronald J.  
PA Tremco, Inc., USA  
SO Brit. UK Pat. Appl., 35 pp.

KATHLEEN FULLER EIC 1700 308-4290

CODEN: BAXXDU

DT Patent

LA English.

IC ICM C08L095-00

ICS C08K005-01; C08K005-04; C08K005-10; C09D175-04; C09D195-00;  
C09J175-04; C09J195-00; C08L095-00; C08L075-04

CC 39-4 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 58

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2242435	A1	19911002	GB 1991-5884	19910320
	AU 9172748	A1	19911003	AU 1991-72748	19910308
	AU 644142	B2	19931202		

PRAI US 1990-497048 19900321

AB Solvent-free compns. useful as coatings, adhesives, and sealants are prepd. by mixing asphalt, bitumens, coal tar, or nonvolatile petroleum with liq. **prepolymers** in the presence of compatibilizers contg. surfactants. Thus, a **prepolymer** from a polyester polyol, Bu benzyl phthalate (I) and MDI was mixed with molten asphalt, maleic anhydride, **Sn catalysts**, bentonite, and propylene glycol monostearate (compatibilizer) to give a cured elastomer with good peel and tensile adhesion and lap shear strength, useful in **roofing adhesives**.

ST asphalt blend **prepolymer**; hydroxypropyl stearate compatibilizer; polyurethane **prepolymer** blend asphalt; **adhesive roofing** asphalt blend; compatibilizer asphalt blend **prepolymer**

IT Roofing

(adhesives for, solvent-free asphalt-urethane **prepolymer** blends as)

IT Sealing compositions

Water-resistant materials

(bitumen-**prepolymer** blends, formulation of)

IT Rubber, synthetic

RL: IMF (Industrial manufacture); PREP (Preparation)

(blends with asphalt, solvent-free, prepn. and uses of)

IT Asphalt

Bitumens

RL: IMF (Industrial manufacture); PREP (Preparation)

(blends with liq. **prepolymers**, solvent-free, prepn. and uses of)

IT Tar

RL: IMF (Industrial manufacture); PREP (Preparation)

(coal, blends with liq. **prepolymers**, solvent-free, prepn. and uses of)

IT Rubber, urethane, uses

RL: IMF (Industrial manufacture); PREP (Preparation)

(polyester-, blends with asphalt, solvent-free, prepn. and uses of)

IT Adhesives

(solventless, bitumen-**prepolymer** blends, formulation of)

IT 106-06-9, Triethyleneglycol dipelargonate 111-60-4, Ethyleneglycol monostearate 1323-39-3, Propylene glycol monostearate 7346-78-3 26403-62-3

RL: USES (Uses)

(compatibilizers, for asphalt-**prepolymer** blends)

IT 101-68-8DP, Diphenylmethane diisocyanate, polymers with polyether polyol

RL: IMF (Industrial manufacture); PREP (Preparation)

(oligomeric, blends with asphalt, prepn. and uses of)

L50 ANSWER 36 OF 71 COMPENDEX COPYRIGHT 2000 EI

AN 1993(2):24109 COMPENDEX DN 930225419

TI Development of an all-purpose impermeably-faced roof insulation.

KATHLEEN FULLER EIC 1700 308-4290

AU Soukup, T.G. (Jim Walter Research Corp, St.Petersburg, FL, USA); Laughlin, W.E.  
MT Polyurethanes World Congress 1991.  
MO SPI; European Isocyanate Producers Assoc  
ML Nice, Fr  
MD 24 Sep 1991-26 Sep 1991  
SO Polyurethanes World Congr 91.Publ by Technomic Publ Co Inc, Lancaster, PA, USA.p 69-74  
PY 1991  
MN 17401  
DT Conference Article  
TC Experimental; Application  
LA English  
AB Facings used in the manufacture of rigid **polyurethane** and polyisocyanurate foam insulations serve a vital role in the overall suitability of a product to meet the demands of the intended application.Current **roof** construction methods present broadly diverse application environments, from mechanically or **adhesively** attached single-ply membranes to hot applied bituminous built-up systems (BUR), which generally preclude the use of an insulation facing comprising ideal properties yet retaining universal suitability.Such an 'all-purpose' facing material would be desirable.Most dual-purpose **roof** insulations for use in either single-ply or hot-mop BUR applications incorporate very tough, fibrous glass mats or cellulosic/glass fiber felts.These facers are permeable to air and moisture to allow their use in hot-mop systems but this permeability results in aged kappa -factors that are similar to unfaced foams.Wall sheathings and insulations specifically designed for single-ply use most often utilize facings of plain aluminum foil or combinations of aluminum foil and paper, glass mats or synthetic films.Such facings cannot be hot-mopped nor are they as tough as the fibrous **roof** insulation facers.If properly designed, however, these facers are impermeable, preventing the infusion of air and moisture into the closed cell core foam and promoting kappa -factor retention as demonstrated by the foil faced products of the Celotex Corp.with stabilized kappa -factor values of 0.021 W/m degree C (0.142 Btu in/hr ft2 degree F).Technology has now been developed by the Jim Walter Research Corp.for fibrous sheet-polymer **composite** facers which combine the toughness, durability and hot-mop characteristics of fibrous **roof** insulation facers with the air/moisture impermeability of foil facers.A series of heavy cellulosic papers varying in construction from virgin pulps to modified blends of secondary fibers were coated with polyvinylidene chloride (PVDC) latex emulsions.Rigid polyisocyanurate foam board was produced, laminated with the prototype facings in continuous restrained-rise and free-rise commercial processes.Candidates were screened in both laboratory and field applied single-ply and BUR applications under standard construction conditions.To study the effectiveness of the PVDC barrier coating, a screening method was developed to correlate kappa -factor retention with the oxygen gas transmission rate (O2GTR) of the facing as determined by ASTM D3985-81.This study showed that an O2GTR less than 0.3 cc/100 in2 24 hrs for a well adhered foam facer ensured that the product met the desired stabilized kappa -factor of 0.021.Insulation value testing by ASTM C518 has verified this correlation and identified the optimum facer **composition**.Two commercial **roof** insulation products, TRI-Star and STABLE-R are currently available from the Celotex Corp.with a stabilized kappa -factor of 0.021 W/m degree employing this technology.(Author abstract) 4 Refs.  
CC 413 Insulating Materials; 818 Rubber & Elastomers; 813 Coatings & Finishes; 811 Cellulose, Paper & Wood Products  
CT \*THERMAL INSULATING MATERIALS; RIGID FOAMED PLASTICS; PROTECTIVE COATINGS; **ROOFS; COMPOSITE MATERIALS; FOAMED RUBBER**  
ST **ROOF INSULATION; IMPERMEABLE FACING; OXYGEN GAS TRANSMISSION RATE; BARRIER COATING; BITUMINOUS BUILTUP SYSTEMS**  
ET C; F; O; D

KATHLEEN FULLER EIC 1700 308-4290



L50 ANSWER 37 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1991:44294 HCAPLUS  
 DN 114:44294  
 TI Reinforcement of open-cell synthetic foam by impregnation with isocyanate compounds and curing with steam  
 IN De Ruyver, Stefaan; Debaes, Bernard; Joos, Patrick; Van Doorselaere, Christiaan  
 PA Recticel, Belg.  
 SO Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C08J009-40  
 ICS C08J009-42; B29C067-20; B32B005-18  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 389017	A1	19900926	EP 1990-200457	19900227
	EP 389017	B1	19941214		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	BE 1003036	A6	19911029	BE 1989-324	19890323
	AU 9050124	A1	19900927	AU 1990-50124	19900226
	AU 620212	B2	19920213		
	CA 2011984	AA	19900923	CA 1990-2011984	19900312
	JP 02292041	A2	19901203	JP 1990-75349	19900323
PRAI	BE 1989-324		19890323		
AB	A synthetic foam with open cells is impregnated with isocyanate compds. (e.g., crude MDI), contacted with a finishing layer, compressed, and treated with steam to cure the isocyanate compds. The method is useful in the manuf. of reinforced parts for automobile interiors, e.g., roof liners, door panels, and floor mats.				
ST	foam reinforcement isocyanate compd; automobile interior molding foam				
IT	Urethane polymers, uses and miscellaneous				
	RL: USES (Uses)				
	(cellular, moldings, reinforcement of, for automobile interiors)				
IT	Polyureas				
	RL: USES (Uses)				
	(foam moldings reinforced by, for automobile interiors)				
IT	<b>Adhesives</b>				
	(isocyanate compds., for laminating plastic foam, for automobile interior)				
IT	<b>Automobiles</b>				
	(interiors, foam moldings for, reinforcement of, isocyanate compds. for)				
IT	101-68-8, Diphenylmethane-4,4'-diisocyanate 9016-87-9				
	RL: USES (Uses)				
	(impregnation of open-cell foams by, with steam curing, for reinforcement)				
IT	9002-88-4, Polyethylene 24937-78-8, Ethylene-vinyl acetate copolymer				
	RL: USES (Uses)				
	(laminates with flexible foams, for automobile interiors)				

L50 ANSWER 38 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1990-343801 [46] WPIDS  
 DNN N1990-262883 DNC C1990-149017  
 TI Renovating roof by adhering plastics sheet - to underlying surface along lines to accommodate expansion and contraction.  
 DC A93 G03 Q45  
 IN SUGRE, D R  
 PA (BROO-N) BROOKS TURKINGTON L  
 CYC 1

KATHLEEN FULLER EIC 1700 308-4290

PI GB 2231350 A 19901114 (199046)\*  
 ADT GB 2231350 A GB 1990-10305 19900508  
 PRAI GB 1989-10697 19890510; GB 1989-14027 19890619; GB 1990-10305  
 19900508  
 IC E04D011-02  
 AB GB 2231350 A UPAB: 19930928

Roof is covered by adhering plastics sheet (212) to a supporting surface over only part of their facing surfaces, at a number of spaced locations, at or adjacent to the sheet periphery, or along a line or lines (16) spaced from the periphery. The sheet is pref. transparent so that adherence can be viewed through the sheet. A number of sheets (12, 112, 212) may be overlapped and secured to each other and to the surface. The sheets may be provided with a polyurethane coating, applied after adherence to the surface. The adhesive is pref. a moisture cured polyurethane adhesive sealant. The surface is pref. provided with ventilation leading to the area within a continuous line of contact between surface and sheet. The sheet is e.g. glass-reinforced plastics.

USE/ADVANTAGE - Partic. for roof renovation, allows expansion and contraction to relieve stress on attachment areas.

FS CPI GMPI  
 FA AB; GI  
 MC CPI: A11-C01C; A12-R05; A12-S07; G03-B03

L50 ANSWER 39 OF 71 COMPENDEX COPYRIGHT 2000 EI  
 AN 1990(7):83928 COMPENDEX DN 900775618  
 TI Structural headliners. Their development, acoustical and physical performance, modular capabilities and economics.  
 AU Doerer, Richard P. (Van Dresser Corp); Scott, Tracy E.; Sounders, Steven  
 MT SAE International Congress and Exposition.  
 ML Detroit, MI, USA  
 MD 26 Feb 1990-02 Mar 1990  
 SO SAE Technical Paper Series. Publ by SAE, Warrendale, PA, USA. 8p 900826  
 CODEN: STPSDN ISSN: 0148-7191  
 PY 1990  
 MN 13111  
 DT Conference Article  
 TC Application; Economic Aspects  
 LA English  
 AB This paper covers the development of different species of structural headliners, such as fiberglass, styrene polyester fiber, thermoformable polyurethane foam and foam composites. The recent development emphasis of the structural headliner is focused on the acoustical performance being equal to the invehicle test results of non-structural headliners being utilized in conjunction with roof bows in North America. The critical criteria in the development of the structural headliner is the physical performance with regard to both roof deflection and the ability to function as a modular headliner. (Author abstract)  
 CC 415 Metals, Wood & Other Structural Materials; 662 Automotive Design & Manufacture; 815 Plastics & Polymeric Materials; 911 Industrial Economics; 408 Structural Design; 402 Buildings & Towers  
 CT \*AUTOMOBILE MATERIALS: Noise Abatement; ROOFS: Plastics Applications; AUTOMOBILE MANUFACTURE; ECONOMICS; VIBRATIONS: Damping  
 ST STRUCTURAL HEADLINERS; AUTOMOBILE HEADLINER PERFORMANCE; ON-ROAD SOUND PRESSURE LEVELS; HEADLINER SOUND REDUCTION PROPERTIES

L50 ANSWER 40 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1989:596580 HCAPLUS  
 DN 111:196580  
 TI Contact adhesive containing halogenated butyl rubber for bonding cured EPDM rubber membrane  
 IN Chmiel, Chester T.; Young, David A.  
 PA Uniroyal Plastics Co., Inc., USA  
 SO PCT Int. Appl., 22 pp.

KATHLEEN FULLER EIC 1700 308-4290

CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C08K003-04  
 ICS C08K005-01; C08L053-00  
 CC 39-15 (Synthetic Elastomers and Natural Rubber)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8906669	A1	19890727	WO 1989-US219	19890119
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 4851462	A	19890725	US 1988-146468	19880121
	AU 8930487	A1	19890811	AU 1989-30487	19890119
	AU 636105	B2	19930422		
	EP 398966	A1	19901128	EP 1989-902323	19890119
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03503901	T2	19910829	JP 1989-502147	19890119
	CA 1317054	A1	19930427	CA 1989-588780	19890120
PRAI	US 1988-146468		19880121		
	WO 1989-US219		19890119		

AB The title **adhesive** contains a crosslinked halogenated butyl rubber, a thermoplastic aliph. hydrocarbon resin having a low mol. wt. and a high softening point, and .gtoreq.1 org. solvent and is used between the edges of EPDM membranes (e.g., in **roofing** use) to form lap seams having good resistance to heat and hot water. An **adhesive** contg. Polysar XL 40302 100, carbon black 10, toluene 387, hexane 43, xylene 107, Piccovar AB-180 100, ZnO 2, and Irganox 1010 2 parts was used to bond EPDM rubber membranes, giving peel strength 6.6 lb/in. and lap shear strength 22.2 lb/in2.

ST **adhesive** bonding EPDM rubber; halogenated butyl rubber  
**adhesive**; membrane EPDM rubber **adhesive**; **roofing**  
 EPDM rubber **adhesive**; hydrocarbon resin **adhesive**  
 rubber

IT **Roofing**  
 (EPDM rubber membranes, **adhesives** for)

IT Coumarone-indene resins  
 Petroleum resins  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**adhesives** contg., for cured EPDM rubber membranes)

IT **Adhesives**  
 (contact, halogenated butyl rubber-hydrocarbon resin, for EPDM rubber membrane)

IT 91-08-7, 2,6-Toluene diisocyanate 101-68-8, 4,4'-Diphenylmethane diisocyanate 584-84-9, 2,4-Toluene diisocyanate 822-06-0, 1,6-Hexamethylene diisocyanate 5124-30-1 9016-87-9, Polymethylene polyphenylisocyanate 11132-83-5, Desmodur N-75 25854-16-4, Xylylene diisocyanate  
 RL: USES (Uses)  
 (**adhesive** contg. halogenated butyl rubber and, for EPDM rubber membrane)

L50 ANSWER 41 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1989-250209 [35] WPIDS  
 DNC C1989-111435

TI Isocyanate free can stable EPDM splice adhesive compsns. - of brominated pre-crosslinked isobutylene isoprene copolymer butyl rubbers and hydrocarbon resins cured by quinoid mixts..

DC A35 A81 E19 G03 P72  
 IN NUSSBAUM, S; STREETS, R L  
 PA (ASHL) ASHLAND OIL INC  
 CYC 16

PI EP 330089 A 19890830 (198935)\* EN 7p  
 KATHLEEN FULLER EIC 1700 308-4290

R: AT BE CH DE ES FR GB GR IT LI LU NL SE  
 US 4881996 A 19891121 (199005) 5p  
 JP 02004883 A 19900109 (199007)  
 CA 1330373 C 19940621 (199430) C09J153-00  
 ADT EP 330089 A EP 1989-102765 19890217; US 4881996 A US 1988-158416 19880222;  
 JP 02004883 A JP 1989-36462 19890217; CA 1330373 C CA 1989-591217 19890216  
 PRAI US 1988-158416 19880222  
 REP A3...9143; FR 2104278; GB 877923; No-SR.Pub; US 4501842; US 4616048  
 IC B31F005-00; C08J005-12; C08L023-28; C08L053-00; C09J003-14; C09J005-00;  
 C09J123-28; C09J157-00; C09J201-00  
 ICM C09J153-00  
 ICS B31F005-00; B32B007-12; C08J005-12; C08L023-28; C08L053-00;  
 C09J003-14; C09J005-02; C09J123-28; C09J157-00; C09J201-00  
 AB EP 330089 A UPAB: 19930923  
 Adhesive compsns. and splicing method for elastomeric substrates including  
 EPDM (ethylene propylene diene monomer) substrates, comprising (a)  
 halogenated, especially brominated, precrosslinked isobutylene-isoprene  
 copolymer butyl rubber (ICBR) of formula (I) X = Cl, Br; n = about 50; A =  
 crosslinking agent for part of butyl rubber unsaturation, e.g.  
 1,3-butadiene. (b) Thermoplastic copolymer. (c) Hydrocarbon resin from  
 thermoplastic hydrocarbon resin, terpene, phenol polymer resin,  
 polymerised pentaerythritol rosin ester. (d) Quinoid cure mixt. (e)  
 Solvent.  
 Component (b) from styrene-butadiene-styrene, styrene-isoprene-  
 styrene, styrene-ethylene-butylene-styrene (SEBS), styrene-ethylene-  
 propylene-styrene copolymers with styrene:rubber ratios 14:86 to 48:52.  
 Component (d): cobaltous acetyl acetate and dibenzoyl p-quinone dioxime.  
 USE/ADVANTAGE - Adhesive splicing of EPDM roofing materials  
 without primer pretreatment of EPDM; single pot isocyanate-free  
 adhesive with 6-month in-can stability.  
 O/O  
 FS CPI GMPI  
 FA AB; DCN  
 MC CPI: A07-A02A1; A08-C09; A08-M01B; A10-E04A; A12-A05A; A12-R05; E05-L02B;  
 E10-A06; G03-B02B  
 L50 ANSWER 42 OF 71 RAPRA COPYRIGHT 2000 RAPRA  
 AN R:371950 RAPRA FS Rapra Abstracts  
 TI THERMOFORMABLE POLYURETHANE FOAM FOR THE MANUFACTURING OF  
 HEADLINERS AND OTHER AUTOMOTIVE INTERIOR TRIM PARTS.  
 AU Frank W (BASF AG)  
 SO Journal of Cellular Plastics 24, No.4, July/Aug.1988, p.375-92  
 ISSN: 0021-955X  
 CODEN: JCUPAM  
 PY 1988  
 DT Journal  
 LA English  
 AB Characteristics of BASF's thermoformable foam Elastoflex W are described,  
 including chemical composition, physical properties, and the  
 six steps involved in processing. The composition and  
 properties of a five layer headliner are described in more  
 detail. The adhesive used in the headliner was a two component  
 PU system Elastoflex 3880.  
 CC 43C6; 6124; 6N1; 9  
 SC \*OC; QN; KT  
 CT AUTOMOTIVE APPLICATION; AUTOMOBILE; CHEMICAL COMPOSITION;  
 MOLECULAR STRUCTURE; COMPANY; COMPANIES; DATA; FOAM; CELLULAR MATERIAL;  
 PHYSICAL PROPERTIES; PLASTIC; PU; POLYURETHANE; TECHNICAL;  
 THERMOFORMABLE; THERMOPLASTIC; VEHICLE ROOF LINER; VEHICLE TRIM  
 SHR CELLULAR URETHANE POLYMERS, thermoformable, automotive  
 applications; AUTOMOTIVE APPLICATIONS, headliners, PU foam  
 GT WEST GERMANY  
 TN ELASTOFLEX 3880; ELASTOFLEX W

L50 ANSWER 43 OF 71 COMPENDEX COPYRIGHT 2000 EI  
 AN 1988(12):168637 COMPENDEX DN 8812118903  
 TI COATINGS FOR ROOFS AND DECKS DON'T HAVE TO BE UGLY.  
 AU Gamero, Robert  
 SO Elastomerics v 120 n 9 Sep 1988 p 28-29  
 CODEN: ELASDA ISSN: 0146-0706  
 PY 1988  
 DT Journal  
 TC Experimental  
 LA English  
 AB Several types of coating systems for roofs and decks are described. Special high-strength polyurethane solvent-based coatings, one- and two-component systems, have performed excellently as topcoats. Single-component, moisture-curing polyurethanes which are fluid-applied and provide multi-layered, monolithic-textured waterproof toppings for both plywood and concrete substrates are easy to apply, economical and functional. Epoxy has good properties as a base coat in many applications on concrete and metal. In polyurethane-hypalon coating systems, the polyurethane provides the usual excellent physical properties and ease of application, while the hypalon topcoat ensures maximum weatherability. Butyl as a topcoat is of definite interest because of its low price and outstanding weatherability. 5 Refs.  
 CC 402 Buildings & Towers; 813 Coatings & Finishes; 816 Plastics, Plant Equipment & Processes; 817 Plastics, Products & Applications  
 CT \*ROOFS:Protective Coatings; POLYURETHANES:Physical Properties; EPOXY RESINS:Physical Properties  
 ST SOLVENT-BASED COATINGS; HYPALON SYSTEMS; TOPCOATS  
 ET T

L50 ANSWER 44 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1987-220962 [31] WPIDS  
 DNN N1987-165416 DNC C1987-092960  
 TI Silane primer - used to improve adhesion of silicone elastomer to polyurethane foam.  
 DC A25 A26 A82 E11 G02 P42 P73  
 IN LEFLER, H V  
 PA (DOWO) DOW CORNING CORP  
 CYC 7  
 PI US 4681808 A 19870721 (198731)\* 4p  
 EP 262969 A 19880406 (198814) EN  
 R: DE FR GB  
 JP 63097642 A 19880428 (198823)  
 EP 262969 B 19920108 (199203)  
 R: DE FR GB  
 DE 3775875 G 19920220 (199209)  
 CA 1307708 C 19920922 (199244) C08J007-04  
 JP 05064978 B 19930916 (199340) 4p C08J007-04  
 ADT US 4681808 A US 1986-914420 19861002; EP 262969 A EP 1987-308711 19871001; JP 63097642 A JP 1987-241010 19870928; CA 1307708 C CA 1987-543237 19870729; JP 05064978 B JP 1987-241010 19870928  
 FDT JP 05064978 B Based on JP 63097642  
 PRAI US 1986-914420 19861002  
 REP A3...8921; EP 167307; FR 2161815; No-SR.Pub; US 4486565  
 IC ICM C08J007-04  
 ICS B05D001-36; B05D007-24; B32B005-14; B32B007-12; B32B009-04; B32B027-00; C08J005-12; C08J009-36; C09D003-82; C09D183-04  
 AB US 4681808 A UPAB: 19930922  
 A method of improving the adhesion of a silicone elastomer (I) coating to a polyurethane substrate (II) is claimed comprising applying to (II) 0.05-0.2 g/ft<sup>2</sup> of a silane of formula ZSi(OR)<sub>3</sub>, where Z = amine and R = monovalent 1-6C hydrocarbon, then applying a coating of (I) comprising the prod. obtd. by mixing: A) 1.0-400 pts. wt. of the reaction prod. of: (i) an organo-Si resin contg. units of R'<sup>1</sup>3SiO<sub>1/2</sub> and SiO<sub>4/2</sub> in a ratio of  
 KATHLEEN FULLER EIC 1700 308-4290

0.6:1-0.9:1 (where R' = monovalent hydrocarbon); and (ii) a polyorganohydrogen siloxane; B) 100 pts. wt. polydiorganosiloxane of formula  $\text{HO}(\text{R}'_2\text{SiO})_x\text{H}$ , where R' = monovalent hydrocarbon, and x = 10-1000; C) 1-150 pts. wt. filler; and D) 0.10-13.3 pts. wt. organo-Sn catalyst.

The laminate so obtd. is also claimed.

The silane pref. has the formula:  $\text{H}_2\text{N}(\text{CH}_2\text{CH}_2\text{NH})_y(\text{CH}_2)_z$ , where y = 0-1 and z = 1-6 and is partic. either gamma-aminopropyl-triethoxysilane or gamma-aminopropyl-trimethoxysilane.

USE/ADVANTAGE - The coated polyurethane foam is partic. used as a roof coating. The adhesion of the silicone coating to the polyurethane foam is improved by the silane primer.

O/O

FS CPI GMPI  
FA AB; DCN  
MC CPI: A05-G01B; A06-A00B; A08-M01D; A12-B07; A12-R05; A12-S02; E05-E02D; G02-A05; G02-A05E

L50 ANSWER 45 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1987-294377 [42] WPIDS

DNN N1987-220338 DNC C1987-124982

TI Plastics laminate for e.g. roofing material - comprises glass fibrous screen having thin metallic film, between 2 transparent or translucent plastics sheets.

DC A32 A94 P73 Q44 Q45

PA (DNPL) DAINIPPON PLASTICS CO LTD

CYC 1

PI JP 62204935 A 19870909 (198742)\* 4p

ADT JP 62204935 A JP 1986-49070 19860306

PRAI JP 1986-49070 19860306

IC B32B015-02; E04C002-22; E04D003-32

AB JP 62204935 A UPAB: 19930922

Plastics laminate comprises two transparent or translucent plastics sheets, with glass fibrous screen placed between the sheets, having a metallic thin film on its surface.

Specifically, the plastics sheets are of e.g. flexible or hard PVC, acrylic resin, polycarbonate, with a thickness of 0.4-1.6 mm, and they may be corrugated. The glass fibre may be inorganic fibre, (e.g. rock wool) or heat resistant synthetic fibre. The fibrous screen is in the form of e.g. plain weave, diagonal weave, leno weave of the yarns (composed of 50-400 fibres) with dia. of 0.03-0.8 mm, where the distance between neighbouring yarns is adjusted to 1.0-8 mm. The screen after weaving is pref. treated with e.g. polyurethane, epoxy, polyamide, vinylchloride. The metallic thin film of e.g. aluminium, tin, is formed by chemical plating, vacuum metallising, sputtering, on the screen, and then coated with adhesive of e.g. polyurethane, polyamide, ethylene-vinylacetate copolymer, nitrile rubber, before lamination with the sheets.

USE/ADVANTAGE - The plastics laminate has good thermal insulation properties and same light transmission as conventional one, and is adaptable for e.g. roofing material of porch, terrace, carport, garage; wall material of agricultural houses, pigstye.

O/2

FS CPI GMPI  
FA AB  
MC CPI: A09-A02; A12-R01; A12-S07A; A12-S08A

L50 ANSWER 46 OF 71 COMPENDEX COPYRIGHT 2000 EI

AN 1987(10):164866 COMPENDEX

TI TESTING STRUCTURAL REQUIREMENTS FOR STATIONARY GLASS.

AU Kirby, Michael D. (Essex Specialty Products Inc)

MT SAE International Congress and Exposition.

MO SAE, Warrendale, PA, USA

ML Detroit, MI, USA

KATHLEEN FULLER EIC 1700 308-4290

MD 23 Feb 1987-27 Feb 1987  
 SO SAE Technical Paper Series Publ by SAE, Warrendale, PA, USA 6p  
 CODEN: STPSDN  
 PY 1987  
 MN 09796  
 DT Conference Article  
 LA English  
 AB The use of **polyurethane sealant adhesive** for stationary glass bonding was advanced with the requirements set by the Federal Motor Vehicle Safety Standards. This requirement along with the demand to reduce vehicle weight led to the importance of using the glass as part of the **roof** structure. The paper discusses the evolution of the **adhesives** used in stationary glass bonding from rubber gaskets and polysulfides to **polyurethanes**. The science and technology of moisture cure **polyurethane sealant adhesive** systems and their performance criteria are described. (Edited author abstract) 7 refs.

CC 415 Metals, Wood & Other Structural Materials; 662 Automotive Design & Manufacture; 812 Ceramics & Refractories; 804 Chemical Products; 817 Plastics, Products & Applications; 815 Plastics & Polymeric Materials

CT \*AUTOMOBILE MATERIALS; **POLYURETHANES**; GLASS: Bonding; **ADHESIVES**

ST AUTOMOBILE GLAZING MATERIALS; STATIONARY GLASS BONDING; **POLYURETHANE SEALANT ADHESIVE**

L50 ANSWER 47 OF 71 HCAPLUS COPYRIGHT 2000 ACS DUPLICATE 3  
 AN 1986:428898 HCAPLUS  
 DN 105:28898  
 TI **Roof-deck composite panels**  
 IN Freeman, Thurman W.  
 PA Dow Chemical Co., USA  
 SO U.S., 4 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM B32B003-26  
 ICS B32B007-12; B32B013-00  
 NCL 428314400  
 CC 58-4 (Cement, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38, 43  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4587164	A	19860506	US 1985-728413	19850429
AB	A <b>multilayer</b> panel (esp. for <b>roof</b> decks) comprises a 1st sub-panel consisting of (aspen) wood fibers bonded with magnesium oxysulfate cement, preferably contg. Na silicate binder, a 2nd sub-panel bonded to the 1st, e.g., with <b>polyurethane adhesive</b> , and consisting of a foam resinous plastic insulation, e.g., polystyrene foam, and a 3rd sub-panel bonded to the 2nd, e.g., with <b>polyurethane adhesive</b> , and consisting of a resin-bonded wood product, e.g., a waferboard. Such panels of 3 1/2-, 4-, and 5-in thickness have d. 4.48, 4.8, and 5.0 lb/ft <sup>2</sup> , R value 11.92, 16.92, and 19.42 with heat flowing up and 12.31, 17.31, and 19.81 down, and design loads 50, 50, and 60 lb/ft <sup>2</sup> , resp.				
ST	insulating wt bearing <b>roofing</b> panel; <b>multilayer roofing</b> panel; fiberboard polystyrene foam waferboard panel				
IT	<b>Urethane</b> polymers, uses and miscellaneous RL: USES (Uses) (adhesive, fiberboard and polystyrene foam and waferboard bonded with, for <b>multilayer roofing</b> panel)				
IT	Cement (magnesium oxysulfate, in wood-fiber boards in <b>multilayer</b> building panels)				

KATHLEEN FULLER EIC 1700 308-4290

IT **Roofs**  
     (panels, multilayer, from fiberboards and polystyrene foam  
     and waferboard)

IT **Wood**  
     (fibers, boards from, in multilayer building panels)

IT **Building materials**  
     (panels, multilayer, from fiberboards and polystyrene foam  
     and waferboard)

IT 1344-09-8  
     RL: USES (Uses)  
     (binder, cement contg., in wood-fiber boards in multilayer  
     building panels)

IT 9003-53-6  
     RL: USES (Uses)  
     (foam, in multilayer roofing panels)

L50 ANSWER 48 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1987:139480 HCAPLUS

DN 106:139480

TI Foamable adhesives for waterproofing of construction

IN Mochizuki, Takashi; Nagayasu, Hisamitsu; Yamamori, Hiroshi

PA Toyo Rubber Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM E04D011-02

ICS C09J005-00

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61225454	A2	19861007	JP 1985-64817	19850328
AB	Construction is waterproofed by coating it with foamable adhesives in convex patterns and laminating a waterproof sheet before complete curing of the adhesive, which has an open cell-structure to enable gases to escape. This prevents layer sepn. caused by swelling. Thus, an 8-mm sheet was coated with 300 g/m2 foamable adhesives contg. 61:100 MDI-polypropylene glycol (I) copolymer and 2.5:100 4,4'-methylenedianiline-MDI-I copolymer, laminated with a 3-mm polyethylene foam sheet (expansion ratio 3000%), and coated with 1:1 100:18 I-TDI copolymer and 8:42:50 MOCA-talc-tar reaction product to give a composite with good water resistance (no change after 14 days in H2O at 40.degree.).				
ST	foam adhesive waterproofing construction; roofing waterproofing foam adhesive; film plastic waterproofing adhesive; polyurethane foam adhesive waterproofing				
IT	Urethane polymers, uses and miscellaneous				
	RL: USES (Uses) (adhesives, foamable, for waterproofing films for construction)				
IT	Adhesives (foamable polyurethanes, for waterproofing membranes for construction)				
IT	Water-resistant materials (membranes, for construction, foamable adhesives for)				
IT	Building materials (waterproofing membranes for, foamable adhesives for)				
IT	9022-71-3	37238-25-8			
	RL: USES (Uses) (adhesives, foamable, for waterproofing films for construction)				
IT	9002-88-4, Polyethylene				

KATHLEEN FULLER EIC 1700 308-4290



RL: TEM (Technical or engineered material use); USES (Uses)  
(cellular, waterproofing films, adhesives for)

L50 ANSWER 49 OF 71 HCAPLUS COPYRIGHT 2000 ACS

AN 1987:408458 HCAPLUS

DN 107:8458

TI **Polyurethane adhesives** for bonding tie bars in wet environment

IN Cornely, Wolfgang; Mehesch, Heinz; Meyer, Frank

PA Bergwerksverband G.m.b.H. , Fed. Rep. Ger.

SO Pat. Specif. (Aust.), 13 pp.

CODEN: ALXXAP

DT Patent

LA English

IC C09J003-16; C09J005-00; E21D020-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	AU 553594	B2	19860724	AU 1983-10060	19830105
	AU 8310060	A1	19830721		

PRAI DE 1982-3200574 19820112

AB A fast-hardening adhesive, suitable for use in cementing tie bars, e.g. underground tunnel **roof** bolts, esp. in wet bore holes, comprises **prepolymer** (mol. wt. 800-500 resulting from the reaction of a polyisocyanate with .gtoreq.1 polyol) and 1-25% polyols (having OH no. 250-2000) or water. Polypropylene glycol (having OH no. 58 and av. mol. wt. 2000) 500 g was added dropwise with stirring to 1000 g polyisocyanate (I, contg. 31% NCO and prepd. from phosgenation of PhNH<sub>2</sub>-HCHO condensates) at 40.degree., and the mixt. was stirred at 60.degree. for 12 h giving a **prepolymer** (II) with 19% NCO content and viscosity 2450 mPa s. Glass cartridge filled with 150 g II was placed in a wet borehole which had been preflushed with 15% watery glycerol contg. 15% triethanolamine. The bolt rod was then inserted to destroy the cartridge to start the gelling (50 s) and after 24 h, the rod could be withdrawn using a 26 tons tractive force, vs. 4.5 (gelling time 1 min) when the cartridge was filled with I and the bore hole was preflushed with a polyol (prepd. from ethylenediamine and propylene oxide) together with water.

ST **polyurethane adhesive** tunnel roof bolt; PAPI

**polyurethane adhesive** two component; rapid hardening

**polyurethane adhesive**; water glycerol ethanolamine

**polyurethane adhesive**

IT Tunnels

(bonding bolts in holes of wet **roofs** in, rapid-hardening

2-component **polyurethane adhesives** for)

IT Urethane polymers, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of, as 2-component rapid-hardening adhesives, for bonding bolts in wet holes of underground tunnel **roofs**)

IT **Adhesives**

(fast-curing, two-component, **polyurethane**, for bonding bolts

in wet holes of underground tunnel **roofs**)

IT 9016-87-9DP, PAPI, reaction products with molasses and polypropylene

glycol 25322-69-4DP, Polypropylene glycol, reaction products with

molasses and PAPI 53862-89-8P 108709-87-1P 108709-88-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of, as 2-component rapid-hardening adhesives, for bonding bolts in wet holes of underground tunnel **roofs**)

L50 ANSWER 50 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1985-289690 [46] WPIDS

KATHLEEN FULLER EIC 1700 308-4290

DNN N1985-215850 DNC C1985-125574  
 TI Rigid insulation shaped by slicing cellular board with sheet cover - pref. of plywood faced expanded polystyrene re-bonded by adhesive polyurethane.  
 DC A93 P73 Q43 Q44  
 IN MCINTOSH, J; SORIA, J Y; VANWILLIGE, W A  
 PA (MCIN-I) MC INTOSH J C; (MCIN-I) MCINTOSH J C  
 CYC 28  
 PI WO 8504922 A 19851107 (198546)\* FR 16p  
 RW: AT BE BR CF CG CH CM DE FR GB IT LI LU ML MR NL SE SN TD TG  
 W: AU BR DK FI JP KR NO SU US  
 FR 2562837 A 19851018 (198548)  
 EP 164280 A 19851211 (198550) FR  
 R: AT BE BR CF CG CH CM DE FR GB IT LI LU ML MR NL SE SN TD TG  
 AU 8542187 A 19851115 (198606)  
 BR 8506609 A 19860415 (198621)  
 JP 61501861 W 19860828 (198641)  
 ADT WO 8504922 A WO 1985-FR87 19850416; JP 61501861 W JP 1985-501753 19850416  
 PRAI FR 1984-5966 19840416  
 REP A3...8602; EP 69543; FR 2490187; No-SR.Pub; US 3042562; US 4147004; US 3793122  
 IC B29C067-20; B29D027-00; B32B003-10; B32B021-08; E04B001-80; E04C002-40  
 AB WO 8504922 A UPAB: 19930925  
 Curved panels are derived from **composite** board comprising expanded polystyrene (22) covered on one face with a **layer** (21) of plywood by cutting an array fo shaped channels (23) through the polystyrene **layer** and curving the residual cover (21) until the faces of the channels are brought into mutual contact. The curved form is maintained by adhesive (I), applied either to the faces of the cuts in (22) or to an additional panel of plywood or other continuous sheet applied to the residual surfaces of the cut face of (22). The cover sheet (21) should have a thickness 2 to 10, pref. about 5% of the thickness of the core (22).  
 USE - Esp. for thermal insulation of non-planar constructions, as in roof spaces of buildings. Combines high stiffness with low wt. and versatility of form.  
 5/17  
 FS CPI GMPI  
 FA AB  
 MC CPI: A05-G01E; A12-A05F; A12-R06; A12-S01

L50 ANSWER 51 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1985-163550 [27] WPIDS  
 DNC C1987-133498  
 TI Two-part **polyurethane** compsn. - for adhesive, coating, sealing and moulding use.  
 DC A25 A81 A82 G02 G03  
 PA (GURI) GURIT-ESSEX AG  
 CYC 23  
 PI PT 79589 A 19850523 (198527)\* 33p  
 EP 153456 A 19850904 (198536) DE  
 R: AT BE CH DE FR GB IT LI LU NL SE  
 ZA 8409602 A 19850606 (198536)  
 DE 3407031 A 19850905 (198537)  
 AU 8436807 A 19850905 (198543)  
 JP 60184514 A 19850920 (198544)  
 NO 8404600 A 19850923 (198545)  
 BR 8406551 A 19851015 (198546)  
 DK 8405514 A 19850828 (198548)  
 FI 8404541 A 19850828 (198551)  
 ES 8601257 A 19860216 (198618)  
 US 4672100 A 19870609 (198725)  
 DE 3407031 C 19880331 (198813)  
 CN 85102027 A 19870131 (198815)

KATHLEEN FULLER EIC 1700 308-4290

EP 153456 B 19880615 (198824) DE  
 R: AT BE CH DE FR GB IT LI LU NL SE  
 DE 3472111 G 19880721 (198830)  
 JP 01011203 B 19890223 (198912)  
 KR 9006909 B 19900924 (199150)  
 ADT PT 79589 A PT 1984-79589 19841130; EP 153456 A EP 1984-113972 19841119; ZA  
 8409602 A ZA 1984-9602 19841210; DE 3407031 A DE 1984-3407031 19840227; JP  
 60184514 A JP 1984-253967 19841130; ES 8601257 A ES 1984-538160 19841130;  
 US 4672100 A US 1984-681494 19841213  
 PRAI DE 1984-3407031 19840227  
 REP AT 337982; DE 2940856; FR 1331217; US 3666835  
 IC C08C000-00; C08G018-00; C08J005-02; C09D003-72; C09J003-16; C09K003-10  
 FS CPI  
 FA AB  
 MC CPI: A05-G01A; A12-A05F; A12-B01K; G02-A02H; G03-B02E4

L50 ANSWER 52 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1985-014106 [03] WPIDS  
 DNN N1985-010064 DNC C1985-005740  
 TI Composite self supporting boards for lining roofs -  
 having an expanded polymeric core between covers of bonded glass fibres.  
 DC A18 A28 A93 P73 Q44 Q45  
 IN LANTELME, J P  
 PA (COMP) ISOVER SAINT-GOBAIN  
 CYC 11  
 PI EP 130921 A 19850109 (198503)\* FR 12p  
 R: BE CH DE FR IT LI LU NL SE  
 FR 2548713 A 19850111 (198508)  
 NO 8402712 A 19850128 (198511)  
 FI 8402696 A 19850106 (198521)  
 EP 130921 B 19870923 (198738) FR  
 R: BE CH DE FR IT LI LU NL SE  
 DE 3466418 G 19871029 (198744)  
 ADT EP 130921 A EP 1984-401404 19840703; FR 2548713 A FR 1983-11165 19830705  
 PRAI FR 1983-11165 19830705  
 REP DE 1659019; DE 2130752; FR 2044345; FR 2148086  
 IC B32B027-12; C04B000-00; E04C002-24; E04D003-35  
 AB EP 130921 A UPAB: 19930925  
 A self-supporting or load bearing panel comprises a core layer  
 of cellular material (I), covered on each face with a layer of  
 mineral (glass) fibres consolidated by heat, pressure and a binder resin  
 into a board having a density of 400 to 1500, pref. 600-1100 kg/m3, (I) is  
 pref. of expanded polystyrene, but may be expanded polyurethane or PVC.  
 Pref. the boards are 0.1 to 10, pref. 2 to 4 mm thick and are bonded  
 to the core by an interlayer of polychloroprene adhesive, to  
 provide an elastic modulus of about 40,000 daN/cm2. Joints between the  
 edges of adjacent panels may be butt or tongue and groove joints opt. with  
 an interfacial adhesive. Pref. the joints between adjacent panels are  
 masked by adhesive tapes pref. impressed until flush with the surface.  
 USE/ADVANTAGE - Esp. for lining ceilings or occupied attics, instead  
 of particle board, to provide thermal insulation, exclude draughts, carry  
 decorative paints or papers and pref. also to carry slats for supporting  
 external tiles. The slats may be of wood and bonded to the outer or inner  
 surface of the external cover by polyurethane adhesive  
 . Relatively impermeable and insensitive to damp and provides a fire  
 resistant surface.  
 0/6  
 FS CPI GMPI  
 FA AB  
 MC CPI: A12-R03; A12-S04B

L50 ANSWER 53 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1985-106048 [18] WPIDS  
 DNN N1985-079469 DNC C1985-045986  
 KATHLEEN FULLER EIC 1700 308-4290

TI Roof adhesive applicator - with tiltable retainers for adhesive containers on rubber wheeled frame.

DC A93 P42 Q45

IN BORNER, G

PA (BORN-N) BORNER G CHEM DACH

CYC 10

PI DE 3337878 A 19850425 (198518)\* 24p

EP 140136 A 19850508 (198519) DE

R: AT BE CH DE FR GB IT LI NL SE

EP 140136 B 19870429 (198717) DE

R: AT BE CH DE FR GB IT LI NL SE

DE 3463345 G 19870604 (198723)

ADT DE 3337878 A DE 1983-3337878 19831018; EP 140136 A EP 1984-111193 19840919

PRAI DE 1983-3337878 19831018

REP DE 2559848; DE 2828324; FR 2464331

IC B05C005-02; E04D015-06; E04F021-02

AB DE 3337878 A UPAB: 19930925

An appliance to coat lightweight sheet metal roofs with lines of prepolymer adhesive on a PU basis for insulating slabs has a rubber wheeled frame with a handlebar and at least one or more (three) retainers for adhesive containers. The retainers can be tilted from a horizontal position to one where the outlets of the containers point towards the roof.

The appliance (1) has three retainers (2) for the adhesive containers which fit with their necks in the rings (30) and are fixed at the bottom by the adjustable stops (31). A lever (15) with a handle (16) can be used to tilt the retainers from the working position, as shown, around the hinges (27) in the horizontal position. The frame consists of a crossbeam (8) with rubber lined wheels (5), a jib (12) with a spur wheel (13) and the handle (10,11). T-pieces (23) and locknuts (24) permit an adjustment of the spacing. The guide wheel (21) runs along the edge of the roof.

ADVANTAGE - This applies up to three strips of adhesive simultaneously and facilitates short interruptions and a resumption of work.

1/3

FS CPI GMPI

FA AB

MC CPI: A05-G01E; A11-B05; A12-A05F; A12-H; A12-R05

L50 ANSWER 54 OF 71 COMPENDEX COPYRIGHT 2000 EI

AN 1985(11):153996 COMPENDEX DN \*851105; 851197574

TI Eri Oy-Paints from Espoo, Adhesives and Sealants from Valkeakoski.

ERI OY - TEOLLISUUS- JA RAKENNUSMAALEJA ESPOON SUOMENOJALTA, LIIMOJA JA SAUMAUSMASSOJA VALKEAKOSKELTA.

AU Valjakka, D1 Simo (Eri Oy, Espoo, Finl)

SO Kem Kem v 12 n 6 1985 p 530-532

CODEN: KMKMAA ISSN: 0355-1628

PY 1985

DT Journal

TC Experimental

LA Finnish

AB Eri Oy manufactures products of high quality for both industry and professional painters and is a pioneer in this field. As the fruits of extensive research and development work may be mentioned the following products: Aquatex Furniture Varnish - the first water-based varnish in Finland; Aquasol Wood Preservative - a water-based, effective wood preservative against blueing and fungus; Aquatex Roof Paint - a water-based and flexible roof sheet paint; Aquatex Primer - an anticorrosive paint for the metal industry. In addition, Eri Oy manufactures a wide variety of solvent-based paints and lacquers for the wood, metal and plastic industries. Their specialty is polyurethanes. (Edited author abstract) In Finnish with English

KATHLEEN FULLER EIC 1700 308-4290

abstract.  
CC 804 Chemical Products; 815 Plastics & Polymeric Materials; 539 Metals  
Corrosion & Protection; 813 Coatings & Finishes  
CT \*ADHESIVES:Manufacture; PAINT:Manufacture; PROTECTIVE  
COATINGS:Manufacture  
ST CAR PAINT; SOLVENT-BASED PAINTS; ANTICORROSIVE PAINT  
ET In

L50 ANSWER 55 OF 71 COMPENDEX COPYRIGHT 2000 EI  
AN 1985(10):135723 COMPENDEX DN 851096281; \*85115210  
TI BONDING AGENTS FOR PVC-PLASTISOL AND MAN-MADE FIBER FABRICS.  
AU Anon  
SO J Coated Fabr v 14 n 4 Apr 1985 p 223-226  
CODEN: JCTFAL  
PY 1985  
DT Journal  
TC General Review  
LA English  
AB An outline of the properties and performances of different bonding agents  
used in coating of synthetic fabrics such as tent materials, truck  
tarpaulins, awning clothing, protective clothing, conveyor belts, linings  
and roof coverings is given. The bonding agents evaluated are  
made by The Bayer AG Company.  
CC 819 Textile & Fiber Technology; 815 Plastics & Polymeric Materials  
CT \*SYNTHETIC FIBERS:Bonding; ADHESIVES:Bonding  
ST BONDING STRENGTH; POLYISOCYANATES; TRUCK TARPAULINS; AWNINGS;  
TENT CLOTHING

L50 ANSWER 56 OF 71 COMPENDEX COPYRIGHT 2000 EI  
AN 1984(9):147606 COMPENDEX DN 840987684; \*8419550  
TI GROUT INJECTION SOLVES ROOF PROBLEMS.  
AU Anon  
SO Coal Age v 89 n 6 Jun 1984 p 77  
CODEN: COLAA7 ISSN: 0009-9910  
PY 1984  
LA English  
AB The process injects a special two-component polyurethane  
formulation under pressure into cracked and broken roof. The  
chemicals cure and solidify into an expanded polyurethane,  
binding the structure into a homogeneous mass. Polyurethane  
solidifies in about three minutes, and cures in two hours to 90% of its  
final mechanical and adhesive strength.  
CC 503 Mines & Mining, Coal  
CT \*COAL MINES AND MINING:Roof Control

L50 ANSWER 57 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1983-703572 [27] WPIDS  
DNN N1983-117194 DNC C1983-063609  
TI Water proofing surface using asphalt compsn. contg. rubber - to impregnate  
synthetic fibre fabric which adheres using pressure sensitive  
adhesive then coating with poly isocyanate  
prepolymer.  
DC A93 L02 P73 Q45  
PA (HODO) HODOGAYA KENZAI KOG; (HODO-N) HODOGAYA KENZAI KOG; (NIKY) NISSHIN  
KOGYO KK  
CYC 1  
PI JP 58091873 A 19830531 (198327)\* 7p  
JP 62049397 B 19871019 (198745)  
ADT JP 58091873 A JP 1981-187002 19811124  
PRAI JP 1981-187002 19811124  
IC B32B011-10; C09D003-72; D06N005-00; E04D011-02  
AB JP 58091873 A UPAB: 19930925  
Side to be waterproofed is opt. primed and adhered with roofing  
coated using pressure sensitive adhesive on the back side and then coated  
KATHLEEN FULLER EIC 1700 308-4290

with a film-forming material to make a waterproof layer.

The roofing is a flexible rubber-asphalt roofing composed of woven or non-woven fabrics of synthetic fibre or synthetic resin film as core material and asphalt compsn. contg. with a pressure sensitive adhesive whose JIS bending resistance is less than 180 mm at 20 deg.C. The film-forming material is composed of isocyanate component as main ingredient and a curing agent consisting of a cross-linking agent and liquid asphalt.

The isocyanate component is composed of polyisocyanate prepolymer obt'd. by reaction of diisocyanate with polybutadiene polyol having more than two hydroxy gp. as main ingredient and the cross-linking agent is 1,5-napthtalene diamine, 2,4-toluene diamine or water.

FS CPI GMPI

FA AB

MC CPI: A03-C03; A05-G; A08-D03; A12-A; A12-R05; L02-D09; L02-D10

L50 ANSWER 58 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1983-730429 [32] WPIDS

DNN N1983-137970 DNC C1983-074796

TI Flexible, elastic window for cab back roof - comprises polycarbonate or polyurethane-urea core layer and polyurethane outer layers.

DC A95 P73 Q12

IN BRUNION, H G; HEUSER, H; HIEMENZ, C; RADISCH, H

PA (COMP) SAINT-GOBAIN VITRAG

CYC 16

PI EP 85006 A 19830803 (198332)\* FR 11p

R: AT BE CH DE FR GB IT LI LU NL SE

DE 3201849 A 19830804 (198332)

JP 58171953 A 19831008 (198346)

BR 8300300 A 19831025 (198349)

ES 8308760 A 19831216 (198409)

US 4540622 A 19850910 (198539)

EP 85006 B 19861126 (198648) EN

R: AT BE CH DE FR GB IT LI LU NL SE

DE 3367878 G 19870115 (198703)

CA 1218004 A 19870217 (198712)

JP 02043627 B 19901001 (199043)

ADT EP 85006 A EP 1983-400148 19830121; US 4540622 A US 1984-627588 19840703;

JP 02043627 B JP 1983-8101 19830122

PRAI DE 1982-3201849 19820122

REP EP 54491; No-SR.Pub

IC B29D009-02; B32B025-14; B32B027-08; B60J001-18;

B60J007-12

AB EP 85006 A UPAB: 19930925

Flexible plastic window to be incorporated in a foldable back roof of a cab comprises a multilayer sheet having a thin core layer at most 1mm thick, made of an impact- and tear resistant plastics, and coating layers, each 0.2-0.5 mm thick, comprising a very elastic polyurethane having selfhealing properties.

The sheet has good elastic deformation properties, good resistance to scratching and abrasion and maintains its properties for extended periods at -40 to +80 deg.C.

0/1

FS CPI GMPI

FA AB

MC CPI: A05-G01E1; A12-B07; A12-T04A

L50 ANSWER 59 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1983-44549K [19] WPIDS

DNN N1983-080660 DNC C1983-043329

TI Bonding anchor rod in bore hole with polyurethane adhesive - by reacting poly isocyanate prepolymer with KATHLEEN FULLER EIC 1700 308-4290

water and/or poly ol in bore hole.

DC A25 A81 A93 Q49

IN CORNELLY, W; MEHESCH, H; MEYER, F

PA (BERG) BERGWERKSVERBAND GMBH

CYC 8

PI DE 3200574 C 19830505 (198319)\* 4p

EP 85829 A 19830817 (198334) DE

R: AT CH DE FR LI

AU 8310060 A 19830721 (198335)

ZA 8209540 A 19830829 (198402)

US 4497595 A 19850205 (198508)

EP 85829 B 19861126 (198648) DE

R: AT CH DE FR LI

DE 3367952 G 19870115 (198703)

ADT EP 85829 A EP 1983-100100 19830107; ZA 8209540 A ZA 1982-9540 19821229; US 4497595 A US 1983-456757 19830110

PRAI DE 1982-3200574 19820112

REP 1.Jnl.Ref; JP 56070075; EP 85826

IC C09J003-16; C09J005-00; E21D020-02; E21D021-00

AB DE 3200574 C UPAB: 19930925

Bonding of anchor rods in bore-holes is carried out with a mixt. reacting to form a polyurethane. This mixt. contains a polyisocyanate prepolymer produced from polyisocyanates (I) and difunctional polyol(s) with a mol. wt. of 800-5000 (1200-3000) and is reacted in the bore-hole with 1-25 wt.% water and/or polyols (II) as OH component.

(I) is a phosgenation prod. of aniline-HCHO condensates with an average functionality of 2.1-3.5 (2.2-2.8). (II) is a polyol with an OH no. of 250-2000 (1000-1850), esp. an aq. soln. of a solid or liquid polyol. One of the components contains a tert. amine or (II) is a polyol contg. amino gps. One of the components also contains an organometallic catalyst. The prepolymer can also contain a filler.

Water can be used (partly) as OH component, ensuring excellent adhesion. It is also safer to use water than 2-compartment cartridges contg. polyester resins and hardener, since the styrene in these resins is harmful. PS

FS CPI GMPI

FA AB

MC CPI: A05-G01E; A12-A05F; A12-W10

L50 ANSWER 60 OF 71 HCAPLUS COPYRIGHT 2000 ACS DUPLICATE 4

AN 1982:583598 HCAPLUS

DN 97:183598

TI Room-temperature installation of asphalt-based waterproof materials on roofs

PA Hodogaya Kenzai Kogyo K. K., Japan; Nisshin Kogyo Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC D06N005-00; B32B011-04; C09J003-16; E04D005-10; E04D011-02

CC 38-2 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57095380	A2	19820614	JP 1980-171285	19801204
	JP 62019550	B4	19870430		

AB Roofs are waterproofed with rubber-asphalt-impregnated fabric sheets and room-temp.-curable adhesive compns. of hydroxy-terminated polybutadiene-polyisocyanate prepolymers and asphalt-based curing agents. Thus, a wooden roof was primed with Millionate CB 30 (urethane polymer) to 100 g/m<sup>2</sup>, coated with 1:10 mixt. of a compn. of Poly bd-R 45 HT 760, tolylene diisocyanate 135, and process oil 100 parts and a compn. of a straight asphalt petroleum spirit soln. 600, CaCO<sub>3</sub> 260, Mg(OH)<sub>2</sub> 100, and H<sub>2</sub>O 30 parts to 1 kg/m<sup>2</sup>, and covered with

KATHLEEN FULLER EIC 1700 308-4290

roofing sheets of nonwoven fabrics of 50:50 vinal fiber-polyester fiber blends impregnated with blown asphalt and coated with 88:12 blend of straight asphalt and SBR.

ST waterproof material **roof**; rubber asphalt sheet **roofing**  
; adhesive room temp curable; hydroxy terminated polybutadiene adhesive;  
**isocyanate prepolymer adhesive**

IT **Roofing**  
(asphalt and rubber-impregnated nonwoven fabrics for, adhesives for)

IT Asphalt  
RL: USES (Uses)  
(**roofing** compns., contg. nonwoven fabrics and rubber, adhesives for)

IT Crosslinking agents  
(water, for room-temp.-curable **isocyanate prepolymer adhesives** for **roofing** compns.)

IT Adhesives  
(room-temp.-curable, hydroxy-terminated polybutadiene polymers with tolylene diisocyanate, for **roofing** compns.)

IT 9003-17-2D, hydroxy-terminated, polymer with tolylene **diisocyanate**  
26471-62-5D, polymers with hydroxy-terminated polybutadiene  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**adhesives**, room-temp.-curable, for **roofing** compns.)

IT 7732-18-5, uses and miscellaneous  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for room-temp.-curable **isocyanate prepolymer adhesives** for **roofing** compns.)

L50 ANSWER 61 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1982-45980E [22] WPIDS  
TI Installation of foam insulation - by spraying heated mixt. of **polyurethane adhesive** and **isocyanate** curing agent, applying insulation board and curing adhesive.

DC A25 A35 A93 G03 P73 Q43 Q44 Q45  
PA (SUOM-I) SUOMALA P  
CYC 11  
PI WO 8201684 A 19820527 (198222)\* EN 11p  
RW: AT CH DE FR GB LU SE  
W: AU JP  
EP 65527 A 19821201 (198249) EN  
R: AT CH DE FR GB LI LU SE  
CA 1183073 A 19850226 (198513)

PRAI US 1980-208240 19801119  
REP CA 627039; GB 970308; US 2929800; US 3106751; US 3804931; US 4224376  
IC B32B005-18; B32B007-12; B32B027-40; C09J005-02; E04B007-00; E04C001-00; E04D011-02

AB WO 8201684 A UPAB: 19930915  
Method for bonding insulation to a substrate comprises (a) applying a layer of adhesive to the substrate, consisting of a heated mixt. of a **polyurethane adhesive** and an **isocyanate** curing **catalyst**, using a mixing ratio which allows curing of the adhesive at below 140 deg.F; (b) positioning insulating board on the adhesive in the required position and (c) curing the adhesive.  
Pref. the adhesive and **catalyst** are heated separately such that their viscosities become equal, then they are sprayed simultaneously onto the substrate, and the insulation is applied within 1-10 mins. of application of the adhesive compsn. The adhesive and **catalyst** may be mixed with a blowing agent such as water or a fluorocarbon to give a cellular adhesive formation on curing.  
Pref. adhesive system comprises 50-70 pts.wt., esp. 60 pts. wt. **polyurethane adhesive** and 30-50, esp. 45 pts.wt. **catalyst**.  
Used esp. in the installation of polystyrene and polyurethane foam insulating panels in **roofing** construction. Application of the  
KATHLEEN FULLER EIC 1700 308-4290



adhesive is less hazardous to construction workers than the asphalt or tar adhesives previously used, which required high application temps. and caused a high incidence of injuries to workers and damage to foam insulation panels.

FS CPI GMPI  
 FA AB  
 MC CPI: A05-G01E; A11-C01D; A12-A05F; A12-R05; A12-R06; G03-B02E4; G03-B03

L50 ANSWER 62 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1982-01253J [47] WPIDS  
 TI Room temp. waterproofing of construction materials - using  
 adhesive of isocyanate component, crosslinking agent and  
 liq. asphalt for excellent adhesion of rubber top sheet.  
 DC A25 A81 A93 G03 Q45  
 PA (HODO-N) HODOGAYA KENZAI KOGYO; (NIKY) NISSHIN KOGYO KK  
 CYC 1  
 PI JP 57168972 A 19821018 (198247)\* 6p  
 JP 62042953 B 19870910 (198740)  
 ADT JP 57168972 A JP 1981-54439 19810413  
 PRAI JP 1981-54439 19810413  
 IC C08G018-69; C08L095-00; C09J003-16; E04D011-02  
 AB JP 57168972 A UPAB: 19930915

The method comprises opt. under-treating the phase of constructions (e.g. roof, basement, water storage cell) to be waterproofed, coating the phase to be waterproofed with (A) adhesive, adhering (B) rubber type waterproof sheet to the adhesive-coated phase and, opt. repeating the process of coating with adhesive and adhesion of waterproof sheet.

Component (A) comprises (1) isocyanate component comprising polyisocyanate prepolymer synthesised by reacting (a) diisocyanate with (b) above 2 OH gp.-contg. polybutadiene polyol, (2) crosslinking agent and (3) liquid asphalt, and when cured, forms waterproof layer.

Component (A) has excellent adhesive property, self-curing property and sufficient flexibility even after curing. The phase of constructions waterproofed has high watertightness, no blister and no water-leakage. Component (B) is (B-1) vulcanised rubber sheet on at least one phase of which unvulcanised rubber layer or/and tacky layer has been formed, or (B-2) unvulcanised rubber sheet.

FS CPI GMPI  
 FA AB  
 MC CPI: A03-C03; A05-G; A07-A01; A11-C01C; A12-A05F; A12-R08; G03-B02E4; G04-B02

L50 ANSWER 63 OF 71 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1981-32566D [18] WPIDS  
 TI Composite building panels - with an interior substrate  
 layer e.g. of plywood, a rigid insulation layer, a  
 cementitious layer and a layer of a dried polymer-rich  
 latex.  
 DC A93 L02 P73 Q43  
 IN JASPERSON, F H  
 PA (AUDA-N) AUDAX ENTERPRISES; (JASP-I) JASPERSON F B; (NORT-N) NORTHWOOD  
 MILLS  
 CYC 12  
 PI WO 8100985 A 19810416 (198118)\* EN  
 RW: AT CH DE FR GB LU NL SE  
 W: GB JP  
 EP 36885 A 19811007 (198142) EN  
 R: AT CH DE FR GB LI LU NL SE  
 GB 2075367 A 19811118 (198147)  
 US 4312908 A 19820126 (198206)  
 US 4357384 A 19821102 (198246)  
 CA 1174578 A 19840918 (198442)  
 PRAI US 1979-81862 19791004; US 1976-747801 19761206; US 1977-854204  
 KATHLEEN FULLER EIC 1700 308-4290

19771123; US 1978-961201 19781116; US 1981-290254 19810805  
REP DE 2512191; GB 1374584; US 3607615; US 3849357; US 3933875  
IC B32B003-26; B32B005-18; B32B007-02; B32B023-06; B32B027-00; B32B031-06;  
E04B001-83  
AB WO 8100985 A UPAB: 19930915  
Composite roofing or walling panels are comprised of  
(a) an interior substrate; (b) a layer of rigid insulation with  
an insulating ability of at least equal to one inch of rigid  
urethane foam; (c) an adhesive bonding layer  
between layers (a) and (b); (d) a layer at least 1/16  
inch thick of cementitious material adhered to the insulation and (e) an  
exterior layer at least 2-4 mils thick of the dried residue of a  
polymer-rich latex coating compsn., the layer contg. at least 80  
wt.% of a film-forming acrylic or vinyl polymer and having a Mar  
Elasticity value of at least 1 and a dry and wet adhesion to maintain  
adhesion of layer (e) to layer (d) under normal  
atmospheric conditions..  
The prods. are useful building panels, esp. for roofing,  
showing good resistance to penetration by fires started on the interior  
side of the building, together with excellent water resistance.  
FS CPI GMPI  
FA AB  
MC CPI: A07-B; A12-R05; A12-R07; A12-S02; L02-D07; L02-D15  
L50 ANSWER 64 OF 71 COMPENDEX COPYRIGHT 2000 EI  
AN 1984(4):60911 COMPENDEX DN 840436598; \*84108837  
TI ROOF MOISTURE SURVEY: RESERVE CENTER GARAGE, GRENIER FIELD, MANCHESTER,  
N.H.  
AU Tobiasson, W. (US Army Cold Regions Research & Engineering Lab, Hanover,  
NH, USA); Coutermarsh, B.; Greator, A.  
SO Spec Rep US Army Cold Reg Res Eng Lab (Hanover NH) 81-31 Dec 1981 23  
CODEN: XCSR3 ISSN: 0375-7935  
PY 1981  
LA English  
AB An insulated roof with a badly blistered bituminous builtup membrane was  
surveyed with a hand-held infrared camera to locate areas of wet  
insulation. Several thermal patterns were observed. Core samples were taken  
to determine moisture contents. Core samples verified that one thermal  
anomaly was caused by the increased thickness of bitumen. All other  
anomalies were caused by wet urethane-perlite composite  
insulation. Some insulation boards contained much more moisture near the  
edges than at the center, but others were more uniformly wet. A few nuclear  
and capacitance readings, taken for comparison purposes, showed that extra  
bitumen adversely affects such sensing methods. Because of the amount of  
wet insulation and the condition of the membrane, both should be  
removed. The new roofing system for this building should have internal  
drains and be provided with a sloped surface. 6 refs.  
CC 402 Buildings & Towers; 944 Moisture, Pressure & Temperature, & Radiation  
Measuring Instruments  
CT \*ROOFS: Insulation; INFRARED DETECTORS: Inspection;  
THERMOGRAPHY: Moisture Control  
ST BLISTERED BITUMINOUS MEMBRANE  
L50 ANSWER 65 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
AN 1980:409207 HCAPLUS  
DN 93:9207  
TI Pressure-sensitive polymer composite  
IN Sheyon, Gregory Michael  
PA Stauffer Chemical Co., USA  
SO Brit. UK Pat. Appl., 8 pp.  
CODEN: BAXXDU  
DT Patent  
LA English  
IC B32B007-12

CC 37-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2024714	A	19800116	GB 1979-23410	19790705
	AU 7947056	A1	19800110	AU 1979-47056	19790514
	AU 526528	B2	19830120		
	CA 1128849	A1	19820803	CA 1979-328535	19790529
	JP 55012179	A2	19800128	JP 1979-75558	19790615
	FR 2430309	A1	19800201	FR 1979-16750	19790628
	DE 2926586	A1	19800124	DE 1979-2926586	19790630
	NL 7905139	A	19800109	NL 1979-5139	19790702
	SE 7905893	A	19800108	SE 1979-5893	19790705
	BR 7904247	A	19800624	BR 1979-4247	19790705

PRAI US 1978-922718 19780707

AB Pressure-sensitive laminates, useful for covering automobile roofs, comprise a layer of heat-bondable plastic film having a backing layer attached on one side and a continuous uniform coating of pressure-sensitive adhesive on the backing layer, which is protected by a polymer film release liner having a m.p. below the heat-bonding temp. of the plastic film. Thus, a 0.36-mm-thick film was manufd. by calendering at .apprx.335.degree. a compn. contg. PVC [9002-86-2] 47.745, CaCO<sub>3</sub> 14.328, n-alkyl phthalate 31.194, fungicide/plasticizer-stabilizer 1.197, epoxidized soya oil 2.385, SiO<sub>2</sub> 0.477, metal soap heat-stabilizer 0.100, pigment 0.900, Ba/Cd/Zn stabilizer 1.197, and liq. phosphite stabilizer 0.477 parts. The film was coated with a PVC plastisol adhesive, dried, decoratively embossed, and laminated at 160.degree. to a needlepunched polyester fiber-polyurethane foam substrate. Polyethylene [9002-88-4] release-coated paper was coated with a 77% soln. of Aroset 1085 [69899-04-3] pressure-sensitive adhesive in EtOAc-PhMe (16.67:5.56), dried, and laminated at 85.degree. to the nonwoven fabric side of the composite film. The release-coated paper was removed and replaced by a polyolefin film liner of m.p. .apprx.86.7.degree..

ST laminate plastic automobile roof covering; PVC film adhesive laminate; adhesive pressure sensitive laminate; release liner adhesive laminate; polyester fiber adhesive laminate; polyurethane foam adhesive laminate

IT Urethane polymers, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)  
(cellular, laminates with nonwoven polyester fiber, PVC film, and pressure-sensitive adhesive, for decorating automobile roofs)

IT Roofing

(for automobiles, pressure-sensitive plastic laminates as)

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)  
(nonwoven, laminates with PVC film, polyurethane foam, and pressure-sensitive adhesives, for decorating automobile roofs)

IT Alkenes, polymers

RL: USES (Uses)  
(polymers, films, release-liners for pressure-sensitive laminates).

IT Automobiles

(roofing material for, pressure-sensitive plastic laminates as)

IT Plastics, laminated

RL: USES (Uses)  
(with pressure-sensitive adhesive layers, for decorating automobile roofs)

IT Adhesives

(pressure-sensitive, laminates with layers of, for decorating automobile roofs)

IT 69899-04-3 69899-08-7 69899-15-6

RL: TEM (Technical or engineered material use); USES (Uses)

KATHLEEN FULLER EIC 1700 308-4290

(adhesives, pressure-sensitive, for decorative laminates for automobile roofs)  
 IT 74-85-1D, polymers with acrylic monomers 79-10-7D, derivs., copolymers with ethylene 9002-88-4 24937-78-8  
 RL: USES (Uses)  
 (films, release-liners for pressure-sensitive laminates)  
 IT 9002-86-2  
 RL: USES (Uses)  
 (laminated films, for automobile roofs)  
 IT 9002-88-4D, chlorinated  
 RL: USES (Uses)  
 (polyethylene blends)

L50 ANSWER 66 OF 71 COMPENDEX COPYRIGHT 2000 EI  
 AN 1978(1):4250 COMPENDEX DN 78015864  
 TI SHOTGUN IS NOT AN ACCEPTABLE SURGICAL DEVICE.  
 AU Good, Fred (Nat'l Roofing Contract Assoc)  
 SO Constr Specifier v 30 n 9 Sep 1977 p 32-35  
 CODEN: COSPAJ  
 PY 1977  
 LA English  
 AB An analysis of various types of roof insulation available, including cellular glass, fibrous glass, fiberboard, urethane, and composite boards is presented.  
 CC 402 Buildings & Towers; 413 Insulating Materials; 415 Metals, Wood & Other Structural Materials  
 CT \*ROOFS:Insulation; GLASS FIBER; COMPOSITE MATERIALS  
 ST FIBERBOARD; URETHANE

L50 ANSWER 67 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1977:486066 HCAPLUS  
 DN 87:86066  
 TI Adhesive tape provided with hardenable adhesive composition  
 IN Bengtsson, O.  
 PA Svenska ICI AB, Swed.  
 SO Swed., 7 pp.  
 CODEN: SSXXAY  
 DT Patent  
 LA Swedish  
 IC C09J007-02  
 CC 37-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SE 385917	B	19760726	SE 1973-3462	19730313
	SE 385917	C	19761104		

AB **Adhesives** which harden to a dimensionally stable polymer on exposure to air are surrounded by a gas-tight shield which is removed before application of the **adhesive** tape in the building industry, e.g. roof coverings, or for manufg. mass-produced articles e.g. boat hulls, buoys, etc. Thus, a glass fiber carrier is impregnated with a mixt. of polypropylene glycol glycerol ether 100, tris(.beta.-chloroethyl) phosphate [115-96-8] 50, cement filler 50, and diphenylmethylenediisocyanate 120 parts, covered with a polyethylene film on each side to completely shield from the effects of the atm., and rolled up during storage in isocyanate-terminated **prepolymer** [52409-10-6] forms. The polyethylene films are removed just before utilization of the tape.  
 ST **adhesive** tape **polyurethane**; building material  
**polyurethane** adhesive; cement filler  
**polyurethane** adhesive  
 IT Glass fibers, uses and miscellaneous  
 Urethane polymers, uses and miscellaneous

KATHLEEN FULLER EIC 1700 308-4290

RL: USES (Uses)  
(adhesive tapes, air-curable)  
IT Adhesive tapes  
(adhesives for, air-curable polyurethanes as)  
IT Building materials  
(air-curable adhesive tapes for)  
IT Cement  
(fillers, for air-curable polyurethane adhesive tapes)  
IT 52409-10-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesives, in air-curable adhesive tapes)  
IT 115-96-8  
RL: USES (Uses)  
(in air-curable polyurethane adhesive tapes)

L50 ANSWER 68 OF 71 COMPENDEX COPYRIGHT 2000 EI  
AN 1977(4):2749 COMPENDEX DN 770427496  
TI ELASTOMERIC ROOFING.  
AU Rossiter, Walter J. Jr.; Mathey, Robert G.  
SO SPE, East N Engl Sect, Reg Tech Conf: Plast in Build; Present Status and Future Prospects, Boston, Mass, Nov 9-10 1976 Sponsored by SPE, Plast in Build Div, Stamford, Conn, 1976 p 78  
PY 1976  
LA English  
AB Elastomeric roofing has been used in the United States for over twenty years. In recent years, its use has been increasing because of economic and architectural considerations. Many new materials and systems are being introduced. Some, which have been traditionally used in the United States in other areas of waterproofing, such as below grade or canal lining, are now being used for roofing. A survey was conducted to ascertain the current state-of-the-art of elastomeric roofing. Based on the results of the survey, a listing of the current elastomeric roofing materials was compiled, along with test methods for determining the properties of membranes fabricated with these materials. The principal materials include acrylic, butyl, chlorosulfonated polyethylene, ethylene propylene terpolymer (ERDM), neoprene, vinyl, silicone and urethane. These materials are available in either liquid or sheet applied systems. Some composite membranes also exist. Factors affecting the performance of the membranes are identified. Guidelines to assist the use of elastomeric roofing are given for both new roofing and remedial roofing applications. Finally, based on the limited available information, preliminary performance criteria for elastomeric roofing systems are suggested.

CC 402 Buildings & Towers; 818 Rubber & Elastomers  
CT \*ROOFS:Coverings; RUBBER, SYNTHETIC:Processing

L50 ANSWER 69 OF 71 COMPENDEX COPYRIGHT 2000 EI  
AN 1973(11):4130 COMPENDEX DN 731154563  
TI INNOVATIVE URETHANE FOAM COMPOSITES FOR HOUSING.  
AU Stubblefield, D.J. (Washington Univ, St Louis, Mo); Falconer, J.P.R.; Moore, T.B.  
SO Cell Plast Conf, 3rd, Int, Montreal, Que, Sep 26-29 1972 p 320-348. Publ by SPI, New York, 1972  
PY 1972  
LA English  
AB Two applications of urethane foam to housing are discussed. The first is the development of a bamboo reinforced urethane foam composite roofing material for tropical areas. Preparation of this material, by either a pour/froth technique in a contact molding operation, or by a spray in place operation is described. The second application of urethane foam is in a rationalized building system for use in the rural areas of the U.S. Non-load bearing walls are employed on a structural frame system. A mobile spray in place operation is used. Foam

KATHLEEN FULLER EIC 1700 308-4290

is sprayed on the outside of a low cost sheet material (which becomes the interior finish) attached to the building frame. 19 refs.

CC 402 Buildings & Towers; 415 Metals, Wood & Other Structural Materials; 816 Plastics, Plant Equipment & Processes; 817 Plastics, Products & Applications

CT \*PLASTICS, FOAMED; COMPOSITE MATERIALS; BUILDING MATERIALS:Plastics; POLYURETHANES; ROOFS; HOUSES

L50 ANSWER 70 OF 71 COMPENDEX COPYRIGHT 2000 EI  
 AN 1970(12):4861 COMPENDEX DN 701257799  
 TI Some highlights of 1969.  
 AU ANON  
 SO Appl Plast v 12 n 12 Dec 1969 p 15-31  
 CODEN: APTCA  
 PY 1969  
 LA English  
 AB Review of new plastics applications, new materials introduced, and new machinery and techniques developed during the year. Examples of many applications are given in construction, housing, packaging, housewares, engineering, etc. Building applications include- polyurethane insulation, PVC cladding systems, composite roofings, new adhesives, automatic strapping machine, cold molding press range, new double tools for pressure pipe production, pipe extrusion heads for pipes of small diameter, coating equipment, gun welder, multicolor molding machine, and new large range of hydraulic injection molding machines. 57799

CC 816 Plastics, Plant Equipment & Processes; 817 Plastics, Products & Applications

CT \*PLASTICS INDUSTRY:United Kingdom; PLASTICS MACHINERY

L50 ANSWER 71 OF 71 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1967:19380 HCAPLUS  
 DN 66:19380  
 TI Composite panel of glass-fiber base and plastic surfacing sheet  
 PA Owens-Corning Fiberglas Corp.  
 SO Brit., 7 pp.  
 CODEN: BRXXAA  
 DT Patent  
 LA English  
 IC B32B  
 CC 37 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1046043		19661019		
PRAI	US		19640228		
AB	<p>A laminating procedure is described for producing a composite structure (for use in automobile roof panels) consisting of a molded glass-fiber base material bonded to a foamed-resin surfacing sheet. In the 2-stage process, a 2-in.-thick blank of glass fibers contg. 10-26% by wt. of uncured phenol-HCHO binder is first molded by heat and pressure to the required shape and thickness. During molding, the blank is compressed to 1/4-in. thickness across the center portion and 1/8 in. around the border of the mold, while the phenolic binder is cured, usually within 45-75 sec., by the heat of the mold maintained at 500.degree.F. This shaped body is placed in an inverted position in the bottom member of a 2nd mold and the body's exposed side is covered with a polyethylene film 3-4 mils thick on which is superimposed a surfacing sheet of foamed polyurethan resin 1/16-1/8 in. thick. The intermediate polyethylene film, when softened by the heat from the upper mold member maintained at 318-48.degree.F., serves as the adhesive to bond the foamed resin layer to the glass-fiber body, forming the composite panel.</p>				
ST	<p>AUTOMOBILE ROOF PANELS; POLYETHYLENE POLYURETHAN COATED PANELS;          KATHLEEN FULLER EIC 1700 308-4290</p>				

POLYURETHAN POLYETHYLENE COATED PANELS; GLASS FIBER-PLASTIC PANELS;  
PLASTIC GLASS FIBER PANELS

IT Urethane polymers, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cellular, laminates with ethylene polymer film adhesive and phenolic  
resin-impregnated glass fibers)

IT Adhesives, uses and miscellaneous  
(ethylene polymer films as, in laminates from phenolic  
resin-impregnated glass fibers and urethane polymer foam)

IT Plastics, laminated  
RL: USES (Uses)  
(from glass fibers impregnated by phenolic resin, ethylene polymer film  
adhesive and urethane polymer foam)

IT Fiber, glass, uses and miscellaneous  
RL: USES (Uses)  
(laminates from ethylene polymer film adhesive,  
urethane polymer foam and phenolic resin-impregnated)

IT Automobiles  
(roof panels for, laminated)

IT Phenol condensation products, uses and miscellaneous  
RL: USES (Uses)  
(glass fiber impregnated by, laminates with ethylene polymer film  
adhesive and urethane polymer foam)

IT 9002-88-4, uses and miscellaneous  
RL: USES (Uses)  
(films of, as adhesives in laminates from phenolic resin-impregnated  
glass fibers and urethane polymer foam)